THE Country GUIDE

In This Issue . . .

- Controling Wild Oats
- Does R.O.P. for Beef Pay?
- How to Get N.H.A. Loans

CANADA'S NATIONAL RURAL MONTHL

MARCH
1959

15¢

Hourly Cost Of Farm Machines

COMPLETE cost accounts kept at the Brandon Experimental Farm, Man., on tractors, combines and hay balers show some interesting results. Items included are depreciation and interest, fuel, oil and grease, repairs, servicing and housing. All costs are computed on an hourly basis.

They estimate that tractors operate 10,000 hours before wearing out, tillage machinery, 3,000 hours, and seeding and harvesting machinery 2,000 hours. Repairs are at actual cost for a year, but are regarded as a basic cost. Depreciation is levied on an hourly basis by dividing the replacement value of the machine by its estimated hours of operational life. Interest is charged at 6½ per cent of replacement value per year. Repairs as a basic cost are estimated on the assumption that 80 per cent of replacement value of a tractor goes into repairs, 100 per cent for tillage machines, and 150 per cent for seeding and harvesting machines. The value of buildings used to house machinery is pro rated against each machine on the basis of 35 years of life for buildings. Service charges take care of time used to refuel, oil, grease and clean the machine at the determined wage for the operator.

Using this method, tractors having a replacement value of $3,800 incurred an operating cost of 95¢ per hour, those with a value of $2,850 cost 78¢ per hour, and at $2,380 cost 65¢ per hour.

A 12′ self-propelled thresher combine with replacement value of $5,500 cost $4.25 per hour. A self-propelled swather at $2,300 cost $2.14. A self-powered, tractor-hauled baler with replacement value of $2,560 operated at a cost of $2.10 per hour. V

Why Have A Farm Workshop?

IS a farm workshop worthwhile? Definitely yes, according to Prof. J. A. Scott of Ontario Agricultural College. The chief advantage he sees in it is that it permits a farmer to organize all his repair resources in one place – workbench, tools and spare parts. If it's heated, he can check all his equipment during winter months, so he's ready to go when spring appears.

In a workshop, the farmer can make many useful articles that cannot be purchased, using scrap material in his spare time. Also, farm equipment can be modified to suit his own requirements.

Quite often a farmer can make his repair shop in one end of the machine shed by insulating the walls, hanging a close-fitting door and pouring a concrete floor. The size will depend on the type of work to be done and what tools are to be used, but a general rule is to have it big enough to provide working space around most farm machines, with the possible exception of the combine.

Professor Scott recommends a good electric grinder for sharpening tools, and a portable ½-inch electric drill for making holes in steel as of real value in machine maintenance. V

Vol. LXXVIII, No. 3 WINNIPEG, MARCH 1959

THE Country GUIDE

Incorporating *The Nor'-West Farmer* and *Farm and Home*

CANADA'S NATIONAL RURAL MONTHLY

In This Issue

● **PERFORMANCE TESTING** is highlighted this month in "Staying in the Black," pages 14 and 15. The picture shows Western Field Editor Cliff Faulknor (left) interviewing Neil McArthur of Watrous, Sask.

● **WE AIM TO HELP YOU** to plan your field work in "Treat Your Forage Right" (page 16), "Can We Tame the Wild Oat?" (page 17), "Does Pasture Grow Hungry?" (page 18), and "Field Crop Recommendations for 1959" (pages 31 to 36).

EASTER IS EARLY, but it still brings the promise of winter's end, as related in "Spring Yields a Harvest of Gold" on page 64.

Features

Short Features

News and Views

Farm Practice

Fiction

Home and Family

COVER: Mrs. Muriel Whitaker greets her pupils at the Lac le Jeune School, near Kamloops, B.C.—Donovan Clemson photo.

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Serving Canadian Farmers Since 1882

Editorials

A Reorganized Department of Agriculture

THROUGH the years those engaged in our farming industry have benefited much from the valuable services and direct financial assistance provided by the Canada Department of Agriculture.

Starting in a very modest way more than a century ago, the Department's work and program of activities grew steadily, but comparatively slowly, up to the end of World War II. Since then, owing to the growing complexities of the industry it serves, expansion of the Department has taken place at an accelerated rate. A great many more scientific and technical personnel have been added to the staff, new research laboratories and other facilities have been provided in many parts of the country, and the responsibilities and work of the regulatory services have widened and become more intensified with increasing farm output. The growth has been marked. So much so, in fact, that today the Department ranks among the largest in the Federal Government, with a total budget expenditure of nearly $100 million annually.

Such sheer physical growth and multiplication of duties and responsibilities superimposed, as they have been, on an organizational framework designed in the 1930's, was almost bound to lead to some difficult problems in carrying out the work of the Department as efficiently and effectively as it should be. It is not surprising, therefore, to find that senior Department officials have been giving extraordinary attention for more than a year now to finding solutions to these problems. As a result, extensive plans have been made to reorganize, and we trust revitalize, this branch of our Government service.

The new plans, which are to come into effect on April 1, include the establishment of a Research Branch that will amalgamate the former Experimental Farms and Science Services, as well as the formation of a Production and Marketing Branch that will combine the former Production and Marketing Services. Each of these new units will have as its head an Assistant Deputy Minister under whom will be a Director-General with appropriate supporting staff. An Administrative Branch will take care of departmental housekeeping and will also embrace the Information Division and the Economics Division, the latter now not much more than a servicing body for the Department. It is anticipated that a fourth Branch will be established later to deal specifically with conservation and rehabilitation matters.

In general, we are in accord with the changes to be made. We believe the Department deserves credit for its initiative and determination to adjust its organization to better meet the ever-widening and commanding needs of a rapidly changing and dynamic agriculture.

FROM our vantage point the most radical and probably significant changes to occur at this time involve the amalgamation of the former research services into a single Research Branch. We propose, therefore, to confine our comments to this phase of the reorganization.

The man who has been appointed assistant deputy minister of research, Dr. C. H. Goulden, explains the changes and gives the reasons for making them in an article on page 19 of this issue. It is abundantly clear from his commentary that the primary objective is to upgrade the quality and to increase the amount of research that is being done for the farmer. This is to be achieved largely by the adoption of a system which will emphasize the "team" approach (several scientists, each with different specialized training, working together on the solution of a given problem), and which is aimed at decentralizing responsibility and authority to regional and institute directors, and to superintendents. Dr. Goulden also quells once and for all any fears that anyone might hold that either contacts with or the views of farmers and farm organizations will be neglected under the reorganization.

Having these considerations in mind, we have but two points to make. First, we hold a strong conviction that the "team" does not appear to be complete. The truth is that what might prove to be a key player in many of the research projects of the Branch is going to be conspicuous by his absence. We refer to the agricultural economist. Nowhere in the new Branch, which will spend about $30 million annually, has allowance been made to employ economists. There are no more than one or two trained economists who have been carried over from the former services to the new Branch, which has a staff of over 1,600 professional people.

We are not suggesting that practical economic considerations have been entirely neglected in the past. We are suggesting that more of the research work should be problem orientated; and that many of the problems that come up for consideration need to be placed in proper perspective—perspective both in relation to the economic importance of the crop or livestock product involved, and to the marketing prospects which prevail. After all there is only so much money to spend. It should be spent where it is going to do the most good. Farming today is undoubtedly a business, and more of the business approach needs to be injected into the research effort. We believe the point has been reached where the biological and physical scientific work must now be more clearly and precisely integrated with economic considerations than ever before. Surely, well trained economists have a vital role to perform in this connection. It is inconceivable in a research effort of this magnitude that it should be otherwise. This glaring and obvious weakness in the Research Branch reorganization plans should be rectified at once.

The second point has to do with the decentralization of authority and responsibility which is to take place. We believe that this is an important step forward, but could become a major weakness if not handled with care. Such decentralization will throw the leadership capabilities of the regional research directors and experimental farm superintendents into sharp focus. Under the former system some of the key personnel appeared to be lacking in leadership qualities. It will be interesting to see how they measure up under the greater demands to be placed upon them, and what the Department will do about it if they don't. Certainly the farmers of any given region, who are dependent on the research done in that region, should not lose out because one or two men in key positions fail to pull their weight. The stakes in farming today are too high and the problems too severe to allow this to happen. Where weak leadership shows up, no time should be lost in transferring those concerned to other work which they can handle. V

The Good Seed

"BEHOLD, a sower went forth to sow . . ." The parable of the sower has a deep spiritual significance for us, but like all parables, it can be taken at its face value, too. In this sense, it points up the wisdom of good husbandry. By thinking what he was doing, a sower could have a crop that "brought forth good fruit, some an hundredfold . . ."

It is important, as the parable shows, that the seed fall on clean ground, provided that the seed is good. This means seed that is clean and viable, and adapted to the region where it is sown. In the Soils and Crops department of this issue, we publish the provincial field crop recommendations for 1959. Behind this matter-of-fact list of varieties lies years of plant breeding and testing right across Canada to find varieties that have the best yield and quality, coupled with the ability to resist some diseases and insect pests. Many hundreds of varieties are tested, but only a few are licensed for distribution. Every year the lists are checked carefully and varieties are removed from them as new and better ones become available. This service is at the disposal of farmers without charge whenever they need it.

The licensing of new varieties is the responsibility of the Plant Products Division of the Canada Department of Agriculture. Plant breeders submit varieties first to the appropriate field crops division, with test data to support their claims for consideration. A committee assesses the performance of each variety, and those that it recommends can be licensed by the Plant Products Division.

The licensed varieties are then considered by provincial and regional authorities, including departments of agriculture, experimental farms and universities, who set up committees to prepare recommendations for their regions or provinces.

One of the major difficulties facing the plant products industry in Canada arises when farmers hear of varieties that give good results in the U.S.A., and "bootleg" the seed across the border. They will likely pass on some of the seed to their neighbors, and in no time at all, a variety which may prove to be undesirable has gained a foothold in Canada. It is safe to say that if a variety has not been licensed and recommended in this country, there is a very good reason for it.

But does it matter if a farmer chooses to use an unlicensed variety? It certainly does. Not only does he reduce his own chances of producing a high-grade, high-yielding crop, but he hurts a lot of other people. There have been numerous cases where a new and useful variety could not be released in this country just because somebody had bootlegged another variety that could not be distinguished from the new desirable one, and the risk of confusing the two in our grading system was too great for the new one to be used safely. Bootlegged varieties also reduce Canadian standards, which are known throughout the world for their excellence. Every time we fall below these standards, we reduce our chances of selling agricultural products. A further point against unrecommended varieties is that what performs well in one place can be a dismal failure elsewhere, under different conditions.

So here is a timely reminder to think very carefully before filling the seed boxes this spring. A lot of capable men, both researchers and farmers, have had a hand in making the best seed of the best varieties available. May this be a year that brings forth fruit an hundredfold—and good fruit, too. V

Letters

Milker Service

I like your farm magazine very much. It gives out a lot of good information both to city and farm life.

I service milk machines—any make and model. I am now going to form a milker service for the farmer. That is if a farmer wants to get away for a day or week or week end, I will send in help to look after his feeding and milking of his stock. Farmers I have spoken to about it are with me 100 per cent. So far it will be only in this part of Ontario until I can get it spread out to other parts of Canada.

A. G. Reeves,
Kitchener, Ont.

Doing It Themselves

We are finding the articles on better bacon hogs, the family farm and do-it-yourself farmers of great interest.

My husband breeds Landrace and is very impressed with them: their size, rate of gain, and ability to produce Grade A carcasses.

It was your article on "They Do It Themselves" (February issue) that prompted me to write and enclose this snap of a forage harvester Gordon built to put up his hay and bedding last year.

May you continue to publish a paper of as much interest and help to the farmer in the future, as you have in the past.

Noella Taylor,
Gainsborough, Sask.

This is the forage harvester built by Gordon R. Taylor of Gainsborough.

Knitting Patterns

I am not in the habit of writing to magazines, but I have just received my copy of the January Guide and would like to say thank you for the knitting pattern. I love knitting and have often made the remark that you never get patterns in any magazine unless you send for them. I hope we may have more from time to time.

Mrs. A. Winter,
Brantford, Ont.

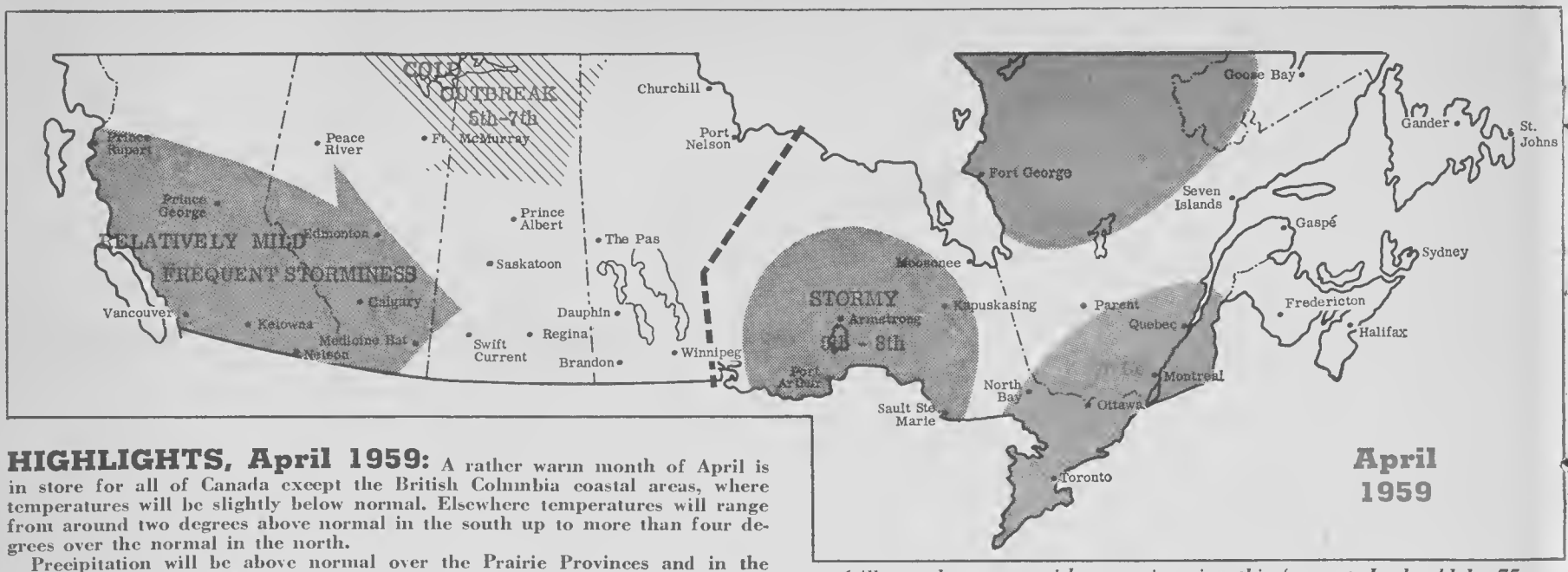
Readers' handicraft interests are so varied that it is not often possible to devote space to complete pattern instructions. However, we will try to repeat this type of presentation periodically.—Ed.

Letters intended for publication should not exceed 200 words.—Ed.

THE Country GUIDE

Weather Forecast

Prepared by **DR. IRVING P. KRICK** *and Associates*

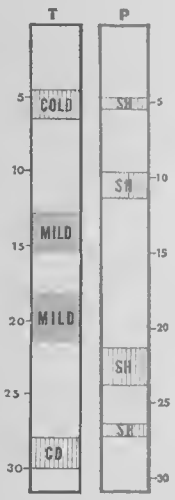


HIGHLIGHTS, April 1959: A rather warm month of April is in store for all of Canada except the British Columbia coastal areas, where temperatures will be slightly below normal. Elsewhere temperatures will range from around two degrees above normal in the south up to more than four degrees over the normal in the north.

Precipitation will be above normal over the Prairie Provinces and in the Maritimes, below normal in the Hudson Bay region.

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area. but not necessarily for your farm.—ed.)

Alberta



1st week 1-4: No major storminess this period. Temperatures will be near normal with daytime highs generally near 50 degrees in the north, near 60 south.

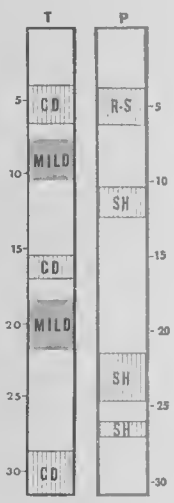
2nd week 5-11: Storminess and cold will move in at start of this period and will prevail on first 2 or 3 days. Minimum temperatures in teens. Clearing at mid-week, but more storminess due at week end.

3rd week 12-18: Skies will be clearing at start of week, and there should be no major storminess this period. Mild temperatures are expected along mountains at mid-week, but cool in the east toward the week end.

4th week 19-25: The forecast is that mild temperatures, particularly in the southern half of the province, will dominate most of this week. Rains are likely on 1 or 2 days at mid-week, but it will be clearing by week end.

5th week 26-30: Mostly stormy and cool at start, with cool weather continuing through the end of the month. Minimum temperatures in teens around 29th and 30th.

Saskatchewan



1st week 1-4: No major storminess is expected during this period, with temperatures staying near normal throughout. Daytime highs near 50, overnight lows in the 20's.

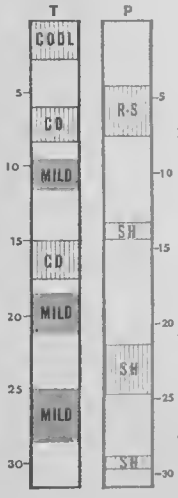
2nd week 5-11: Stormy and cold at start, with some high winds. Precipitation on 2 or 3 days at start of week, clearing at mid-week with low temperatures between 5 and 15. Warming last half with showers.

3rd week 12-18: The storminess featured at start of week will clear out rapidly, and then the remainder of the week will be mostly fair. Turning cold at mid-week, with minimums down into the teens.

4th week 19-25: It will be warming rapidly at start of week with daytime highs climbing into 60's. Storminess with showers will dominate 2 or 3 days at mid-week, but it will be clearing at week end.

5th week 26-30: Some showers likely at start of period, with cold temperatures and minimum readings into the teens, moving into the region toward the end of period.

Manitoba



1st week 1-4: Cool weather will dominate the period, although not severely cold. Minimum readings will generally be low 20's and teens, no major storminess.

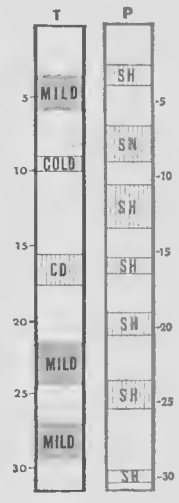
2nd week 5-11: Rather heavy storminess, particularly along U. S. border, will dominate start of this period on 2 or 3 days. Cold weather, with minimum temperatures between 5 and 15 degrees mid-week, mild week end.

3rd week 12-18: Some light scattered shower activity is likely at the start of this period, otherwise no major storminess. Cold weather will dominate mid-week, with minima in the teens, and then warming at week end.

4th week 19-25: Mild temperatures expected, with readings near 70 degrees at start of this week under fair skies. Showers will then move in at mid-week and will likely prevail on 2 or 3 days.

5th week 26-30: Mild temperatures, with daytime readings in the 60's, will be a feature of this period. Showers likely in much of the province around the 29th or 30th.

Ontario



1st week 1-4: Fair weather early in period, with increasing clouds and some showers likely at end. Temperatures near seasonal normal, daytimes 50 in south, 40's North.

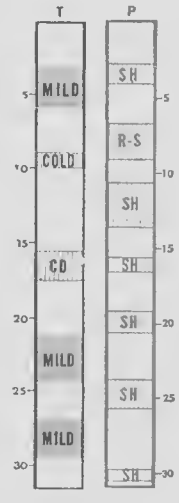
2nd week 5-11: Briefly showery weather at start of period, clearing with mild temperatures early part of week. More showers likely on day or two at mid-week, with brief cool spell following. More showers at week end.

3rd week 12-18: Warming temperatures at start of week will be accompanied by storminess and wind which will dominate 2 or 3 days early in the period. Colder at end of week, with brief showers around 16th or 17th.

4th week 19-25: Showery weather forecast early in the week, with some precipitation likely around Monday or Tuesday. Mild temperatures, daytime readings in 70's at mid-week, followed by storminess at week end.

5th week 26-30: Mostly mild temperatures are expected, with daytime readings in the 60's during this period. There will be a brief threat of showers at end of week.

Quebec



1st week 1-4: Mostly fair but increasing cloudiness and probable showers at week end. Temperatures near normal, daytime highs near 50 south, upper 30's north.

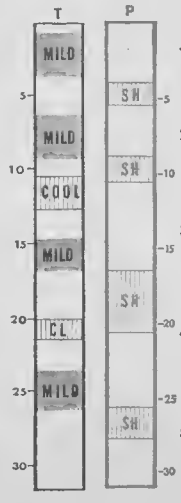
2nd week 5-11: Mild temperatures with showers, clearing briefly early in week with more showers mid-week. A brief cool spell following will give way to mild temperatures, more storminess and wind at week end.

3rd week 12-18: Stormy, with wind and rain at start of week on 1 or 2 days. Clearing briefly at mid-week, with cool temperatures following. Spotty shower activity around the 16th. Fair and cool at week end.

4th week 19-25: Stormy at start of week with rain likely on 1 or 2 days. Clearing, mild temperatures at mid-week, followed by more precipitation at week end. Daytime highs will be into 70's around mid-week.

5th week 26-30: Mostly mild temperatures expected during this period, with daytime highs going into the 60's. Some threat of light showers likely around 30th.

Atlantic Provinces



1st week 1-4: It will be mostly mild, with no major storminess during this period. It is expected that daytime high temperatures will be generally in the 40's.

2nd week 5-11: After stormy weather at start of week, with rain on 1 or 2 days, it will be clearing and mild at mid-week, with daytime highs in 50's. More rain and showers are likely near the week end.

3rd week 12-18: Clearing and cold at start of week, with minimum temperatures dropping into the 20's. Mostly fair through much of the week and warming temperatures in latter half, storminess at week end.

4th week 19-25: The first half of this week will be dominated by frequent showers and some cloudy, unsettled weather. Clearing and cooler at mid-week, mostly fair and cool until week end warming trend begins.

5th week 26-30: Mild temperatures with cloudy skies and showers at start of the period will give way to clearing skies around the 29th with slightly cooler temperatures. V

What's Happening

FARMERS TO BENEFIT FROM SEAWAY OPENING

Western grain farmers will benefit from reduced transport charges that will result from the opening of St. Lawrence Seaway. The basic price of wheat in store at the Lakehead increased by 5⅞ cents per bushel, of which 5⅝ cents was due to savings in transportation costs. The increase applies only to Lakehead prices, and will not necessarily mean that the full amount of 5⅝ cents will accrue to Western producers. According to Trade Minister Churchill the benefit might be somewhat under this amount per bushel, but nevertheless it is still expected to be substantial. √

ONTARIO FARM SAFETY PROGRAM IS LAUNCHED

A forward step in farm accident prevention was realized in Ontario in February when more than 300 persons, representing 55 counties and districts, endorsed a proposed farm safety program at a 2-day Farm Safety Conference at Guelph. The meeting was sponsored by the Ontario departments of agriculture and transport.

It is planned to conduct a survey of farm accidents over a 1-year period beginning March 1, 1959. The objective will be to provide a county and district farm accident picture, so that a specific safety program can be undertaken in each area. Some 7,000 rural people have offered to serve as accident reporters. Their reports will be confidential, in that no names of persons or location of farms would be revealed, but the findings would be compiled and used to prepare a farm safety program. Ontario farm people are asked to co-operate so that an effective farm safety program can be devised. √

LIVESTOCK PRODUCERS CHANGE THEIR THINKING

A basic change of thinking is taking place in the meat production business, with performance becoming of paramount interest to the commercial producer.

In addressing the annual meeting of the Meat Packers' Council of Canada, S. C. Barry, director-general, Production and Marketing Branch, Canada Department of Agriculture, went on to say that such things as performance testing, rate-of-gain and feed conversion are the popular topics of discussion among farmers today. He said that the principles which these embody are the ones which have enabled broiler producers to increase their production from 30 million pounds in 1953 to 174 million pounds in 1958. He predicted that because of the biological similarity between animal species, many of the techniques which have proven so effective with broilers will be found applicable to hogs.

Mr. Barry listed and explained several factors which would likely be involved as hog producers improved their efficiency.

• **Hybrid Vigor** – Recent tests at Iowa State College showed that breed crosses of many different types averaged 41 per cent greater weight per litter at 154 days of age than the pure line parents used in the crosses. In fact, 80 per cent of the hogs now produced in that state are crossbreds. At the University of Alberta, Lacombe-Yorkshire crossbreds gained faster, reached market weight faster and used less feed per pound of gain than pure Yorkshires.

• **Early Weaning**—One large operator who is weaning successfully at 3 weeks of age, estimates that he can get along with 20 per cent fewer sows while maintaining his same pig output.

• **Artificial Insemination**—This is the closest thing in the animal industry to the hatcheries of poultrymen, and it is the instrument through which breeding progress can most simply be made available to commercial producers. In this country, only a few details need to be ironed out to make A.I. practical, and in the United Kingdom, there is already in existence a commercial A.I. service for hogs.

• **Age**—The cheapest gains in terms of feed consumed per pound of growth come during the early part of an animal's life. As a result, it is quite possible that there will be a tendency toward lower market weights, and in the long run, the problem of overweight hogs may well be replaced by one of lightweight hogs. √

FEDERAL SUBSIDIES TO AGRICULTURE IN 1957-58

Canada Department of Agriculture subsidies and grants for the fiscal year 1957-58 reached $56.4 million. This exceeds the $45 million outlay in cash of the two previous years, and nearly equals the $57.2 million spent for these purposes in 1954-55. Here is a run-down on the 1957-58 disbursements:

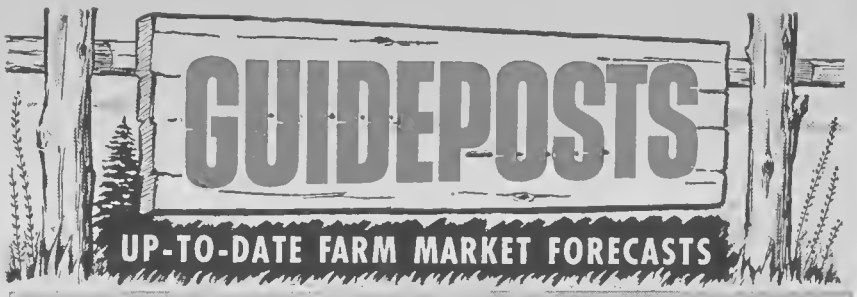
Agricultural Prices Support Act	$ 5,988,000
PFAA net awards	11,641,000
Freight assistance on western feed grains	17,778,000
Hog premiums	5,442,000
Land reclamation and water conservation programs	11,445,000
Compensation for diseased animals slaughtered	148,000
Cheese quality premiums	845,000
Cheese factory improvement	511,000
Cold storage warehouses	795,000
Grants to agricultural organizations	222,000
Grants to fairs and exhibitions	945,000
Lime assistance	500,000
Premium on purebred stock	52,000
Livestock purchase and distribution	22,000
Potato warehouse construction	8,000
Emergency movement of hay	9,000
	$56,351,000

PARKLAND BARLEY ACCEPTABLE FOR MALTING

The Brewing and Malting Barley Research Institute has announced that extensive pilot plant testing and commercial brewing trials in Western and Eastern Canada have indicated that Parkland barley is now acceptable to the Canadian brewing industry.

(*Please turn to page* 79)

The reader comes first! Don't hesitate to write The Country Guide to suggest how our magazine can serve your farm, your family and your community. The address is The Country Guide, Winnipeg 12, Man.



FIELD CROP OUTLOOK again not particularly bright. What to plant on individual farms will depend on stocks on hand, the livestock program and possibility of drought. Keep an eye on long range weather forecast during planting season--the last week in June and first half of July is often a critical period on Prairies.

WORLD BREAD-WHEAT SUPPLIES are heavy and it's doubtful if Canadians can sell as much wheat this year as last. In recent years marketings have averaged about 16 bushels per acre of wheat--enough to clear an average yielding crop. Production above this will have to be stored or used on farm.

MANY OAT BINS will be nearly empty by mid-summer. Prospects as cash crop are not encouraging, but farms with heavy livestock program should grow extra for feed and fodder as insurance against drought.

MALTING BARLEY MARKETS have been reasonably good and stable, and this crop offers some cash possibilities. World feed grain supplies are large so market prospects for feed grades are somewhat below average. About the same acreage as last year's will likely meet all requirements.

FLAXSEED offers the advantage of cash in fall as deliveries are practically free of restrictions. However, U.S. government stocks are larger than last year's and world oil markets generally weak. Barring drought, prices are likely to be below those of a year earlier.

RAPESEED OUTLOOK not too bright as supplies of edible vegetable oils are large and prices weak. Large quantities of rapeseed available in Canada are opening up new markets, however, and it's still a worthwhile crop for some land.

OILSEED MARKETS will be significantly influenced by U.S. government programs this year. Look for some switch from soybeans to corn, and for lower price supports for soybeans and flaxseed. C.C.C. holdings of flaxseed may be dumped on world markets this spring and summer.

DURUM WHEAT MARKET not likely to strengthen. Stocks already on hand seem more than ample to meet market requirements next season.

LESS SUMMERFALLOW on many prairie farms may increase total production. There is a greater risk of crop failures, but if weeds can be controlled, it may mean more money over the long pull. Check yields and costs on your own farm.

HOG PRICES have been resting on price support floor for some time and likely to remain there for next month at least. There are some indications that trend to greater output is slowing down.

JOHN DEERE BALERS are Designed to Win ...NOT Just to *Tie*

14-T Twine-Tie

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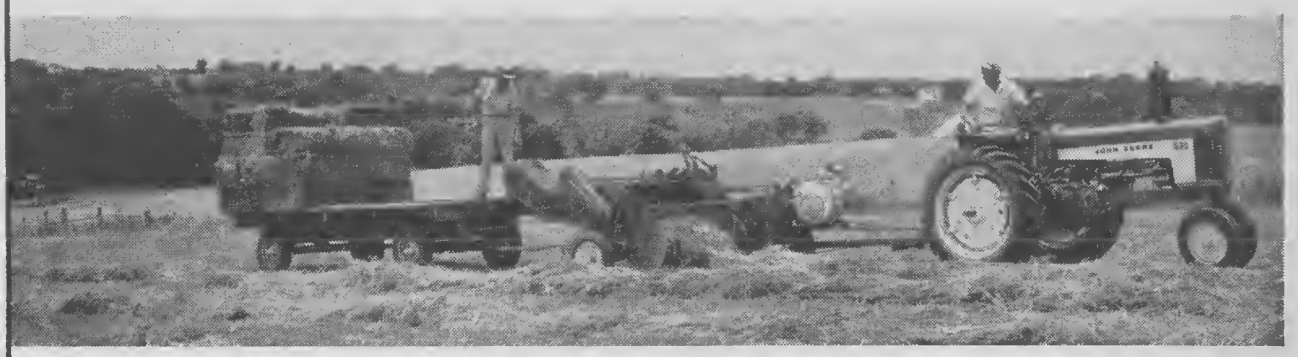

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What Farm Organizations Are Doing

PRAIRIE OTTAWA DELEGATION

The farmers' delegation to Ottawa, planned and organized by farm organizations in the Prairie Provinces, and scheduled for March 10, was intended to bring to the attention of the Government and the people of Canada their case for deficiency payments on prairie-grown wheat, oats and barley marketed in the past 3 crop years, through a brief supported by more than 200,000 signatures.

The Western farmers' case for deficiency payments on grain was outlined in a radio talk recently by Rudy Usick, chairman, Manitoba - Ottawa Delegation Committee in the following terms:

• During the past 10 years the index of farm costs has risen by over 50 per cent, while the price of wheat on the farms in Manitoba has declined by 28 per cent, oats by 29 per cent, and barley by 22 per cent. This deteriorating cost-price relationship has resulted in the purchasing power of the bushel of wheat being reduced to the lowest level it has reached since the depression in the 1930's. As a matter of fact, on the basis of the 1935-59 dollar, the price of wheat last year on the farm was the equivalent of 53 cents a bushel.

• The situation has persisted now for 5 years, ever since 1954. It has affected all segments of the community. It now requires almost 2½ carloads of wheat to purchase the combine that could be purchased for one carload 10 years ago. As a result, farm machinery purchases since 1954 have been at less than half the level of the early 1950's.

• The overall effect of this declining purchasing power has been partly alleviated by the larger than average volume of grain which farmers have been able to deliver in recent years. During the last 3 years, for instance, when the cost-price squeeze has been the most pronounced, farmers delivered 575 million bushels per year, as against the 30-year average of 456 million. Exports have also been high. Last year, wheat exports at 316 million bushels, were 17 per cent higher than the 10-year average.

• While the problem facing the farmers has been frequently diagnosed as one of restricted markets, the figures indicate that we have been delivering large volumes and, in fact, larger volumes than we can probably expect to deliver over a long-term average. There is no real surplus problem in carryover of grain on 90 per cent of the farms in this province. The real problem is a matter of price.

• The cost side of the cost-price squeeze might be reduced. There are few people, however, who really expect this situation to develop in the near future. As a matter of fact, all indications point to a continuing increase in price, rather than a decline. The recent 17 per cent freight rate increase is a most pointed example. All wage contracts which have come to my attention during the past year have been signed at higher levels. Usually this increase in wage bill is passed on to the consumer through higher prices.

• In 1956-57, the U.S. export subsidy for No. 2 Hard Winter Wheat ranged all the way from 74 cents a bushel to $1.75 a bushel, with an average subsidy for all classes at $1 per bushel. At the same time, farmers in the West have been called upon to meet U.S. competition for flour markets by a reduction in price of wheat which is averaging 10 cents a bushel at present.

• Students of the international situation see nothing that would lead them to conclude that the prices on the international market are likely to increase.

• Accordingly, farmers have suggested that the price of grain should be restored through the use of deficiency payments to the level which prevailed from 1945-53. It would be a simple operation for the Wheat Board, at the time of final payment on each crop year, to supplement the payment to the extent necessary to bring the price to a pre-determined level.

• The problem created by the increase in cost of production index of 50 per cent since 1947 would still be left untouched—which means that the farmers' request for deficiency payments is a very modest request indeed. The farmer does not want relief. He believes that he is entitled, in all justice, to a fair price for the product he produces and sells. V

IFUC BRIEF TO FEDERAL GOVERNMENT

A comprehensive farm program embodying long-term policies such as parity prices, crop insurance, expanded credit facilities, producer controlled marketing, reduction of costs, an export subsidy on flour to be paid by the federal treasury instead of by the farmers, as well as immediate assistance by deficiency payments was submitted to the Federal Government in February by the Interprovincial Farm Union Council.

IFUC said that depressed farm prices, rising costs and the efforts of industry and business to "integrate" farming into a centralized system of food production, processing and distribution are forcing farmers off their farms into the cities where they will "swell the ranks of the wage-earners and/or the unemployed."

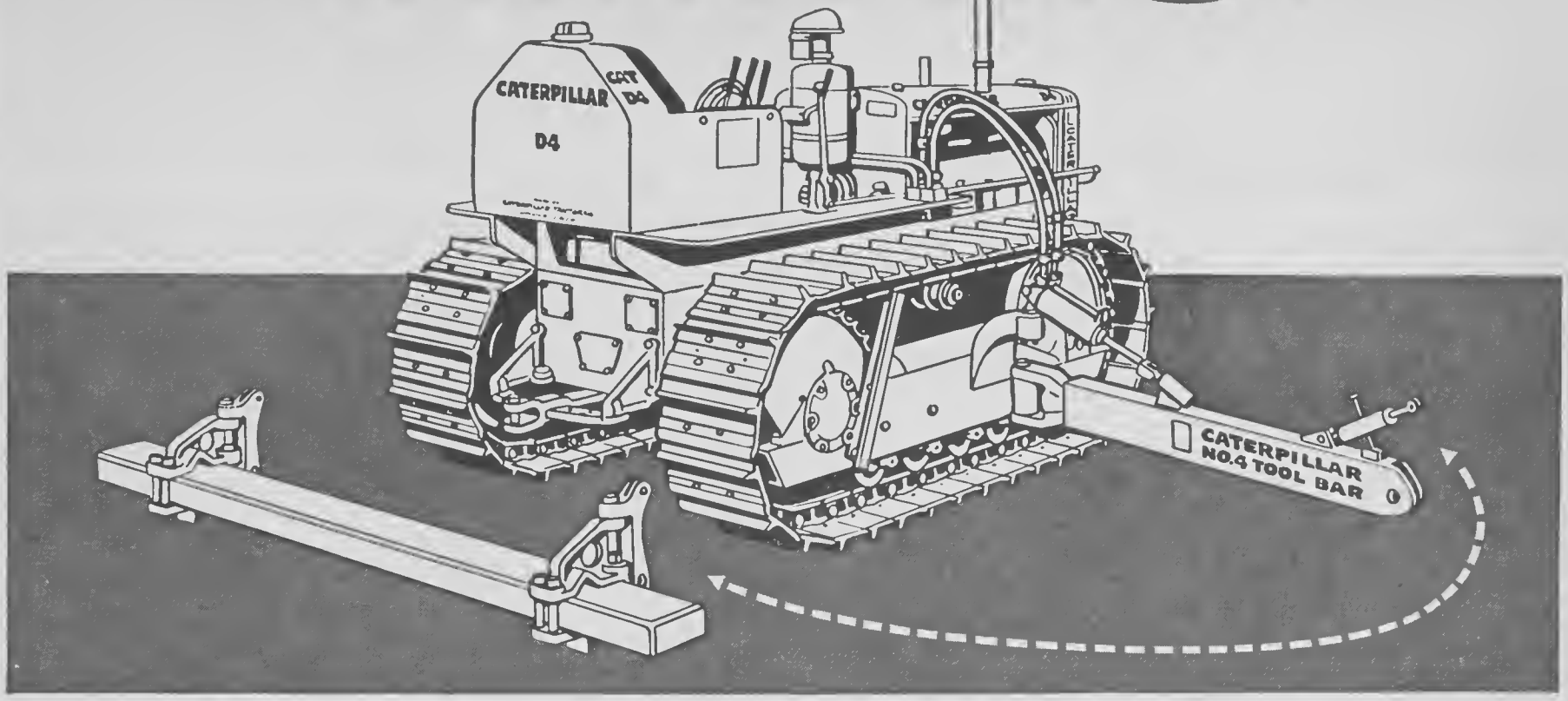
It warned that "the combined effect of these trends will be the gradual elimination of the last sizeable group of individual owners of productive property" which will "open the road to complete centralization of control of all means of production and distribution in ever fewer and larger corporations."

This is bound to have far-reaching effects on the social and political institutions of the country, the brief said.

The first question to be answered, IFUC said, is "whether federal agricultural policies to be enacted will

(*Please turn to page* 80)

Amazing!



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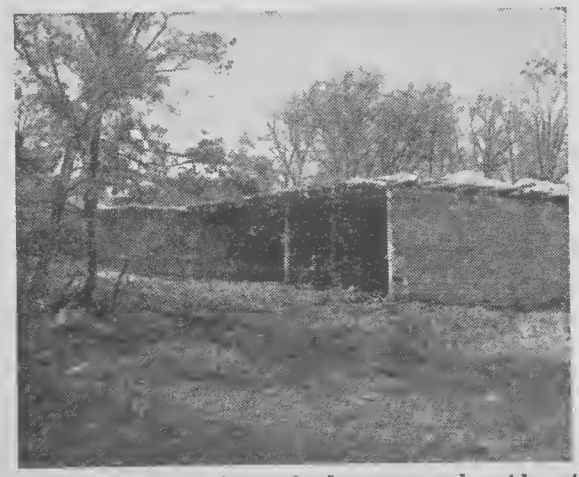
Sid Ransom demonstrates a front-end loader which was built entirely on the farm by his son Bill, except for the hydraulic cylinders.

Bill (left) and Don Ransom have diplomas in agriculture. They are as enthusiastic about increasing farm productivity as their father is.

Trench silos cut into the slope of a ravine are ideally located for self-feeding cattle and also for providing the drainage that silage needs.



This inexpensive pole barn uses the side of the ravine as one wall. Yearlings are given good protection when they are wintered here.

Farm Without Frills

Sid Ransom and his boys have worked hard on and off the farm to provide the capital for expansion

by RICHARD COBB

[Guide photos

The slopes formerly created a tough erosion problem on the Ransom farm, but a forage program has taken care of that, and now they provide good summer pasture and protection against winter winds.

THE year 1934 was not a time when money flowed freely or ambitions were achieved readily. All Sid Ransom had was a small and not very productive farm in the Turtle Mountain region of southwest Manitoba, capital that he describes as "slender," and eight head of cattle. Mrs. Ransom helped out by teaching school. Now, 25 years later, one might wonder how Sid and others like him had the heart to begin building a future on such uncertain foundations.

He has had two principles to guide him. One is to concentrate on building up capital rather than a fancy layout, and the other is to treat the soil as an investment, which will pay dividends only so long as sufficient is put into it.

He would refuse to call himself a success even now, but the program he established, and persisted in no matter how tough things were, is an achievement in itself. What's more, sons Bill and Don have graduated in the University of Manitoba's diploma course, and the third son, Brian, is now taking the degree course in agriculture. Through their father, they can see that farming and country living are worthwhile occupations, and now that Sid is president of the Manitoba Federation of Agriculture, they can take care of things at home whenever he's away working for the farm movement.

IT'S easy to talk about building up capital, but here are some of the things Sid has done about it. When he needed a loan, he invited the bank manager to visit his farm and showed him what was going on. Either Sid talked persuasively or the bank manager was a farmer at heart, or both. The result was a loan to pick up a forage harvester at a bargain price, and then the forage box to go with it.

The chief way to raise needed money has been through working off the farm at trucking cattle, clearing land, spraying, harvesting forage, moving gravel, tackling anything that others wouldn't or couldn't do. The boys have often been away from the farm on these jobs, and the oldest, Bill, has also helped out as a paid instructor for the provincial welding courses in the winter months. Often they have had to make money the hard way, but if it's well spent, they have no complaints.

Building capital would have been useless without a farm program. When Sid Ransom had a beef herd of 20, he asked the Manitoba Department of Agriculture and the University of Manitoba to advise him on the next step. They looked over his rolling fields, where water had been too busy carrying away topsoil to be much help to crops, and told him to go heavily into grass-legume production, and to build up the cattle herd to use it. That is still the basis of the Ransom farm program. Forage crops anchor the soil and fill the silos. Year by year the cow herd increases, and more beef goes to market.

At the highest point of the farm, Sid constructed a dugout with a reserve supply in a well beside it, and piped clean water down to the home and the cattle yards.

At the lowest point there is a ravine, which he has also turned to his advantage. What better place than this for protecting cattle in winter? He dozed out part of the bank and built a simple pole shelter, using the side of the ravine for one wall, rough boards for the other sides, and straw bales for the roof. This cost about $150. He also cut two trench silos in the side of the ravine, handy for self-feeding and with natural drainage. The ravine is usually too wet for producing hay, but it makes good summer pasture.

After this success with one ravine, Sid has plans for another on a quarter section to the south. He see this other ravine as a potential cattle yard of 3 to 4 acres for w i n t e r use, in line with the original program to increase the cattle on feed. A trench silo could be dug there too, and when the hydro is extended along the road, he could pump water into the feedlot from another dugout. There's plenty of tree shelter, and forage crops for silage could be grown in an adjacent field.

THE present beef herd numbers around 35 breeding cows, with their calves and yearlings, and some feeders they buy. The next objective is to build a basic herd of 50 to 60 cows, and then to head for the 100 mark. They've crossed Herefords and a few Angus with a Shorthorn bull, and reckon that compared to straight breeding, they can get 100 lb. extra gain with these first crosses during the feeding period.

The cows winter out in the ravine, with self-fed silage and oat straw. Fattening stock have hay and silage, plus screenings from their registered seed enterprise. For the calves, weaned early in October, there's a lean-to shed and corral, while yearlings have the pole shelter.

The forage harvester helps them make excellent silage, their most economical feed. This includes some oats and clover, as well as alfalfa, brome and meadow fescue for hay and silage. Creeping red fescue is well liked (*Please turn to page* 50)

[Guide photos

This is one of the promising two-year-old bulls they bred on the Van Nortwick farm.

by CLIFF FAULKNOR

Staying In the Black

. . . and performance testing

REMEMBER that story in your old school reader about the boy who used to look longingly across the sun-splashed valley at a house with golden windows? One day, he went over to see this wonderful place, only to find the golden windows had moved to a house on his side of the valley. A closer look told him he needn't have made the journey at all, for the place he was seeking was his own.

Aberdeen-Angus breeder Lloyd Van Nortwick of Redfield, Sask., came to much the same conclusion when he took a closer look at his own cattle through the Federal-Provincial Record of Performance scheme, commonly called "performance testing." Weight-for-age and rate-of-gain figures on his young bulls told him that the top quality replacement animals he was seeking were right in his own herd all the time.

Mr. and Mrs. Van Nortwick moved their family north to Redfield in 1933 from the wheatlands near Kerrobert, Sask., after drought and grasshoppers had just about wiped them clean. They bought a CPR quarter section in the new area and farmed it for several years before moving to their present place, which Lloyd now operates with his sons Earl, 32, and Mervin, 28. The whole family, in fact, has stayed with agriculture because daughter Joyce is married to neighboring farmer Jack Glass.

The Van Nortwicks have a section and a half of deeded land (including two quarters belonging to the boys), and lease another five quarters for hay and grazing. Their chief forage crops are the natural grasses of this northern parkland country, which they use for both hay and pasture. About half of their land is cultivated, producing feed oats and barley, plus a little wheat. Barley straw is also baled for feed, and hauled—along with native hay—out to the bush ranges where their sleek black "Doddies" winter out comfortably in the sub-zero temperatures. All grain is rolled before being fed.

Through the use of creep feeders, grain and concentrates are made available to calves on the range when the animals are only from 2 to 3 months old. Unlike some critters (and a lot of people), the calves don't overeat just because the stuff is there. With a wisdom beyond their years they manage to allot themselves a proper ration of grain to go along with the milk of their dams. The young ones are housed back at the Van Nortwick farmstead during their first winter where they can be easily checked from day to day.

All their grain is rolled before being fed. This feed granary has a roller mill right alongside it.

LLOYD bought his first purebred cattle — four cows and a heifer—at a local sale in 1946. A hired bull was used to service them for the first 2 years, then a bull calf was bought from William Van Orele of Castor, Alta. Today, the herd numbers about eighty head which have been built up carefully over the years.

The Van Nortwicks generally keep their young bulls until they are 2 years old, then sell them at the spring sales. Some heifers are culled, but most are retained to add to the herd. In 1956 and 1957

The Van Nortwick family team (left to right) includes Earl and Mervin and their father, Lloyd.

they had both the grand and reserve grand champion bull at the North Battleford sale; last year they took the reserve grand and reserve junior bull ribbons at Prince Albert, and grand champion Angus female and junior champion female at Lloydminster.

The bull which built the Van Nortwick herd—Eston Blackcap of Olds 43rd—was raised at the Olds (Alberta) School of Agriculture. Retired from service last fall, the old herd sire is being replaced by some of his own progeny. That's where the "golden windows" come in. Only in this case Lloyd and his sons weren't looking across a sunlit valley, but in a set of officially recorded birth, weaning and yearling weights of each calf crop for the 2 years the herd has been in the Federal-Provincial R.O.P. scheme.

Yet the moral of the story was the same. For the figures told Lloyd and the boys that their own bulls averaged a gain of 2.34 lb. per day on feed, as compared to the overall average of 2.47 lb. for all herds being tested in the three provinces participating in the R.O.P. plan—British Columbia, Saskatchewan and Manitoba. That's when the Van Nortwicks decided they could find the most promising young bulls right on their own farm.

THE R.O.P. scheme is supported by the Canada Department of Agriculture, but the field work is done by officials of each provincial department of agriculture concerned. These men make scheduled visits to breeders and commercial stockmen who have placed their animals on performance test to weigh and grade the calves (conformation). Two visits are made yearly—at weaning and at the end of a 168-day winter feeding period when the animal is about a year old. Birth weights are recorded by the stockman himself, because it isn't practical for an official to be on hand at just the right time.

This quonset-type barn houses the calves during their first winter. After that they live out in the open.

The actual weights of the Van Nortwick's 1957 and 1958 calf crops, recorded by Saskatchewan livestock fieldman Erle Roger, are as follows:

1957-58

Male calf	*Birth*	*Weaning*	*365 days*
1	60	525	940
2	63	510	925
3	65	485	925
4	80	585	1,020
5	68	525	990
6	50	415	730
7	67	570	1,100
8	70	540	950
9	60	445	820
10	63	405	725
Female calf			
1	55	400	655
2	60	390	635
3	62	415	715
4	52	395	645
5	(not recorded)	360	665

1958-59

Male calf	*Birth*	*Weaning*	*365 days*
1	65	515	-----
2	65	545	-----
3	75	565	-----
4	75	545	-----
5	65	500	-----
6	65	500	-----
7	70	535	-----
8	68	515	-----
9	68	460	-----
10	65	460	-----
Female calf			
1	60	490	-----
2	60	480	-----
3	65	430	-----
4	65	475	-----
5	60	415	-----
6	65	445	-----

As will be seen from these figures, a large calf at birth generally meant a larger animal right down the line, but not in every case. Because of certain variable factors, such as the age of the dam (some of the dams of this herd were heifers) or calf age at weaning, it isn't possible to accurately gauge the true productive capacity of various animals in a herd unless the weights are adjusted accordingly. In the first year of the test, weights were corrected to a calf age of 180 days and an age of dam of 6 years (which is considered a cow's production peak). But from now on, only the calf age adjustment is being made. To correct for calf age, you subtract birth weight from actual weaning weight, divide by the number of days old, multiply by 180 and re-add the birth weight.

For example: A calf with a birth weight of 66 lb., and weaned when 162 days old, weighed 346 lb. Therefore, the corrected weaning weight is: $346-66 \div 162 \times 180 + 66 = 377.4$ lb. It is officially recorded as such.

EACH animal is given a weaning-weight index which represents the relative merit of each calf within the group tested on the basis of its corrected weaning weight. The average of the corrected weaning weights within a group has an index of 100. But R.O.P. rating depends on more than size alone. Calves are also judged for conformation and rate of gain.

More information of value to both the breeder and the commercial producer is gained from the 168-day winter feeding period than from the birth, weaning weights, or conformation rating. By the number of pounds gained from actual weaning weight to the end of the feeding period, an owner is able to learn the average daily gain of each animal. Here, the calf gets another number, the rate-of-gain index, which shows the relative merit of each according to actual pounds gained during the feeding period.

What use are a set of numbers to you? Well, for one thing, when you glance at the index numbers a fairly accurate picture of the productivity of each animal begins to emerge. Whether you're a pure-bred breeder or a commercial stockman, you'll soon find you can't afford to keep calves with low index ratings, or bulls and cows which produce such calves.

In one herd registered under the scheme (*not* Van Nortwick's) calves that had identical treatment and opportunity differed as much as 1½ lb. per day in their gains. The slowest gaining calf weighed 200 lb. less than the fastest gainer at weaning, although the former was 2 months older at the time. Sold as a feeder on a per pound basis, the top calf could bring as much as $20 more, or $40 more if the animal was kept over the winter feeding period. That's the kind of calf you want in your feedlot, and its sire and dam are the types you want in your breeding herd!

A homemade bull holder. Lloyd shows how it is adjusted to the animal by moving a two-by-six.

To date, the R.O.P. scheme hasn't shown any real difference in productive ability among the three top beef breeds. But it has served to verify what experimenters have found just about everywhere, namely, that size and rate of gain are largely inherited factors. The tested and indexed steer is the premium animal of the future, which is something both breeder and feeder will soon find they can no longer ignore.

The Van Nortwicks intend to stay with the blacks because Angus cattle are hornless and winter well in northern Saskatchewan. And they intend to stay *in* the black, too, with the help of performance testing. V

Some opinions from Saskatchewan cattlemen who have adopted performance tests:

NEIL McARTHUR, Watrous (on right):

"Official P.T. records are an important step toward planned improvement of livestock, and can't be tampered with."

ALEX RENNIE, Flaxcombe:

"I feel that in a few years any animal from a P.T. herd will be the one to bring the highest price."

BILL THODE, Dundurn:

"My experience so far shows that performance tests are another useful tool to help us raise better cattle."

LEOT SANDERSON, Piapot:

"In my opinion, good bulls are not enough. The breeder has to have some good R.O.P. heifers as well."

GEORGE TRUSWELL, Leney:

"Unless an animal gains at least 2¼ to 2½ lb. per day, I don't bother with it. The scales give me that information."

DON BOWIE, Piapot:

"We haven't been in this long enough to assess results, but I think P.T. will pay off in a few years."

Treat Your Forage Right

Forage crops are the cheapest cattle feed around, and the best forages are those that are clipped early

by DON BARON

THE old idea of measuring yields of forage crops in tons per acre is out of date, according to Dr. K. L. Turk, head of the Department of Animal Husbandry, Cornell University. Quality is more important than yield per acre, he told a group of agricultural engineers meeting at the Ontario Agricultural College. His feeding trials showed that no matter how much grain you add to poor quality hay, it can never equal rations that contain good hay.

Dr. Turk found that the key to forage quality is early cutting. Early cut forages were more digestible than late cut ones, whether harvested as hay or silage. Cows fed early silage and early cut barn-dried hay, produced 12 per cent or 4.5 pounds more milk per day than those fed late cut field-cured hay, and late silage. Furthermore, the cows that were continually fed late cut forages lost body weight.

In comparing the costs of various forages, Dr. Turk said that pasture provides nutrients more cheaply than other forages under most conditions, followed in order by field-cured hay, mow-dried hay, corn silage, legume and grass silage, and finally grain feeds. In fact, in his trials, nutrients from pasture cost only about one-sixth as much as those from a purchased concentrate mixture.

HOW do you get high quality harvested forages? Dr. Turk has found that hay conditioners (crimpers and crushers) speed up the curing of hay, and that mow drying and ensiling permit early cutting as well. He predicts that agronomists will soon be advising more frequent clipping of hay fields.

Here are a few ideas that might help Canadian farmers harvest a higher quality forage this year.

CONDITIONER - STOOKER COMBINATION

Operator at Brown farm flips bale into position to complete stook. The stook of bales is easily released from metal platform by a tripping mechanism.

PARIS, Ont., dairyman, R. F. Brown, harvested 50 acres of hay last year without losing a bale of it from rain damage, and he gives much of the credit to his new hay conditioner. "It speeds up the curing time, and gives the hay a softness I have never noticed before. You can't find a hard coarse stem in an armful of it. The hay cured soft and green."

The conditioner enabled him to cut hay earlier than usual, because it squeezes open the heavy stems, and hence, speeds up curing time. He cut the heavy crop of grass and legumes that is pictured, at noon on June 19, and followed along behind with the conditioner. The following day, the hay was ready to be baled and stooked, so there was little chance of sudden spring showers soaking it in the swath, leaching out color and nutrients.

While the conditioner helped him get better hay, his new stooker made it easier to handle the bales. It consists of a simple metal framework which is hauled behind the baler. A man standing on it flips the bales as they come from the baler, into position on the stooker. When the stook has been built in this manner, the operator releases a tripping mechanism, and then starts over again on the next stook of bales. The bale stooker eliminates the slow hard job of standing every bale on its end, and, says Brown, it greatly reduced losses from weathering too.

PLASTIC FOR SMALL SILOS

JOHN DALRYMPLE tried two kinds of plastic silos at the Kemptville Agricultural School last year, and when he opened them in January, he found very little freezing or spoilage, and the silage came out in excellent shape.

"Such silos," he says, "may be especially useful for handling small packages of silage. They could be filled early in the spring right in the corner of the hay field, and fed out during summer drought, or in the fall."

The plastic for one of the silos came in the form of a huge bag. In filling it, the sides were rolled down and a circle of snow fence set up inside and filled with grass. Then the snow fence was pulled off, its diameter was reduced slightly, and it was set on top of the first layer and filled again. Once three layers of grass were in the bag, the snow fence was removed, the sides of the plastic bag were rolled up over the top and tied securely.

The other silo was the horizontal type. Grass was piled on the ground, a sheet of plastic was laid over it, and the edges were securely anchored and made airtight by covering with a heavy material like earth.

Both silos held 25 tons. Cost of plastic was $2.00 a ton for the bag, and $1.00 a ton for the horizontal silo cover.

"Such a low charge can be written off entirely in a single year," explains Mr. Dalrymple. "Any breaks in the plastic can be patched, so we will use these silos another year, and thus reduce our costs even more."

[Guide photos

Layer and horizontal plastic silos like these are both economical and safe for protecting small packages of silage.

A black polyethylene of 6 mils was used for the horizontal silo while the bag consisted of green vinyl of 8 mils weight. The latter remained pliable even in sub-zero weather.

"Important thing in storing silage with plastic," says Dalrymple, "is to get the silos sealed up immediately after they are filled, to exclude air and reduce spoilage. The plastic balloons up for a few days as fermentation begins, but then it comes back down to normal."

PORTABLE WIND - TUNNEL DRIER

FARMERS can cut, cure and store their hay—even heavy stands of clovers—in a single day, by using the portable wind-tunnel type driers like the one illustrated here, which is sold commercially. The wind-tunnel drier must be used in combination with a hay crusher and baler. Since the crusher breaks open the stems, it enables them to dry as fast or faster than the leaves. This means that more leaves can be saved and the entire plant is exposed to less weather damage.

The drier blows hot air from its gun-type oil burner through a canvas sock-and-tent unit fixed over a slatted crop drying wagon box, thus drying the baled hay there. Simple field-testing equipment is available to enable the operator to make periodic moisture tests, and hence to retain complete control of the process.

(*Please turn to page* 52)

"Hay in a day" is the purpose of this portable wind-tunnel hay drier, being used on a farm at Brandon, Man., in combination with a hay crusher and baler.

Wild oats have reduced cereal yields between 15 and 50 per cent in a set of experiments.

CAN WE TAME THE WILD OAT?

Two researchers explain how this weed operates and what is being done to stop it

by H. W. LEGGETT and J. D. BANTING ★

THE wild oat was a problem when the ancient Greeks and Romans were farming, and has persisted as a curse on cultivated crops ever since. In the intervening time, the two sub-species of wild oats of special interest to Canada, known as cultiformis and fatua, have spread through Russia and Western Europe, and were introduced into North America by immigrant settlers.

It is hardly necessary to remind ourselves that wild oats are wily. The seeds can lie dormant for years and then suddenly germinate, and plants may be injured by cultivation, but they can survive and grow again. Control is made more difficult by an affinity between wild oats and some of the cultivated crops, with the result that efforts to eradicate the weed can injure the crops too. But before discussing control, here are some of the known facts about the wild oat.

To get a picture of the seriousness of the wild oat infestation, we have to go back to a survey of the three Prairie Provinces made by J. M. Manson in 1931. He did a good job, making a trip through the region, sending out thousands of questionnaires to farmers, and studying reports from the three provincial departments of agriculture. The result was startling. It showed that 85 per cent of the cultivated acreage in Alberta, Saskatchewan and Manitoba was infested with wild oats, 45.3 per cent heavily, 24.2 per cent moderately and 15.5 per cent lightly. It is doubtful that another survey at this time would show much change in the total infestation, but there would likely be a marked difference in the degree of infestation. Manson did not indicate how many wild oat plants per specified area there would be in heavy, medium or light infestations. However, judging by the reports of various workers in the past few years, we can estimate conservatively that heavy would mean 40 or more wild oats per square yard, and that a light infestation would be anything below 20 and above zero.

WHEN we consider that one wild oat plant can easily produce 250 seeds, even a light infestation could become serious very quickly. It has been claimed that about 95 per cent of these seeds rot in the soil, but this still leaves 12 plants per square yard from only one plant. It doesn't take long for a single plant to start an infestation.

This picture is further emphasized by a look at dockage figures taken at our terminal elevators. The average yearly dockage from 1924 to 1950 was 6,430 carloads, with one-third of this estimated to be wild oats. If this is so, we ship about 2,143 carloads of wild oats, or more than 4 million bushels, to our terminal elevators each year. It has been calculated from surveys that this is only one-fifth of the wild oats we actually produce. Small wonder, then, that we rate wild oats as Western Canada's number one weed.

Delayed seeding overcame wild oat competition effectively in the left-hand plot; normal seeding in the other plot permitted the wild oats to flourish.

There has been no clear estimate of the damage caused by wild oats, but we do have the results of an experiment conducted by the late Dr. Pavlychenko at the University of Saskatchewan. He demonstrated that barley, which is considered our best competitor crop, had its yield reduced 15.5 per cent by wild oats. Wheat was reduced 33 per cent, oats 49.1 per cent, and flax, a poor competitor, dropped 84.2 per cent. By projecting these figures, it can be shown that wild oats account for one-half of our total weed bill.

How Wild Oats Work

WILD oats are different in several important ways from the cultivated oats. Regardless of their position on the spikelet, all seeds of avena fatua (wild oat sub-species) have a basal scar, or sucker mouth, and are awned. The shedding of the grain while maturing draws a sharp line between the wild and the cultivated. Put simply, the cultivated seeds are more firmly attached and fall less readily. Another important difference is that wild oats have delayed germination. Since the chief difficulty in eradicating wild oats is the persistence of the seeds in the soil, the breaking of this dormancy and the reasons for delayed germination are very important.

Researchers have been working on this dormancy problem at the University of Saskatchewan, and believe that the cause may be a germination inhibitor in the hull of the wild oat. Following this line, it now appears that not one but possibly two inhibitors are preventing germination.

Another aspect of the dormancy question is the effect of temperature. It has been found in Alberta that the largest percentage of wild oat seeds germinate between 34° and 50° F. The percentage that will germinate after soil temperature rises above 50° falls off very rapidly.

Oxygen also appears to be a factor in dormancy. It has been shown that fewer wild oat seeds germinate in heavily watered, compacted soils than in similar soil that has been cultivated.

Secondary dormancy may also be induced by lack of oxygen or too high a concentration of carbon dioxide in the soil produced by the respiration of micro-organisms and plants.

Moisture is the fourth major factor in studies of dormancy. Western Canada is relatively dry, and we know that lack of moisture is usually the limiting factor in weed seed germination. In this connection it has been shown that it takes at least 22 per cent moisture to support germination on medium clay loam soils, and ex-

(*Please turn to page* 56)

★*The authors are at the Regina Experimental Farm, where Mr. Leggett is Superintendent as well as project leader of wild oat investigations, and Dr. Banting is plant physiologist.*

Nitrogen treated brome-alfalfa plot, at the Lacombe Experimental farm.

Does Pasture Grow Hungry?

[Guide photos

Tests on pasture land in Eastern Canada have shown the value of proper fertilizer treatment.

Hampshire sheep at Brainard, in the Peace River country, grazing a test pasture. A brome-alfalfa mixture, combined with a nitrogen-phosphorus fertilizer, gave a per-acre return of 273 lb. of lamb.

Cross-Canada research shows that pasture fertilization more than pays for the extra cost

WHETHER you measure returns per acre from your forage crops by bale, milk pail or by meat over the scale, you can add to them by using fertilizer. Those returns can generally be increased by using nitrogen and phosphorus instead of a straight nitrogen fertilizer, and it pays to sow a grass-alfalfa mixture rather than just grass. That's the picture which emerges after 3 or 4 years of pasture fertilization tests conducted by various researchers across Canada.

At Lacombe Experimental Farm, home of the Lacombe pig, a large-scale pasture experiment, started in 1955, has sought the answers to three important questions: (1) What pasture mixtures will stand up best over several years of grazing? (2) How many extra pounds of beef are gained by top dressing pastures with fertilizer? and, (3) Can the normal grazing season be extended, and winter feeding shortened, by fertilizing pastures?

The Lacombe experiment covered about 54 acres, much of it a sandy soil which shouldn't normally be used for cultivated crops. This was divided by strong wire fencing into 27 two-acre pastures, which were sown to the following pasture types: (1) brome grass at 12 lb. per acre; (2) brome and alfalfa, using 10 lb. of brome and 2 lb. of alfalfa to the acre; and (3) creeping red fescue at 8 lb. per acre. Fertilizer treatments consisted of 100 lb. of ammonium nitrate (33-0-0) an acre, 200 lb. of 16-20 to the acre and check plots where no fertilizer was used at all. The fertilizer was applied every year, first thing in the spring, and each test was repeated three times for accuracy.

When the fields were clipped the first year (1955), the fertilized plots showed a production increase of almost 100 per cent. Later that fall, 100 Hereford calves were purchased to "harvest" the succeeding crop, and these were put on the experimental plots at the start of the 1956 grazing season. Each pasture was grazed to capacity and the animals weighed from time to time to measure the performance of each sward in terms of beef gains. Forage clippings were also taken from caged areas within each plot.

By August 28 of that first year, animals from fertilized fields showed an average gain of 300 lb. per acre as compared to 225 lb. for those on unfertilized plots. Increased carrying capacity on the fertilized plots varied from 10 to 20 per cent.

EACH succeeding fall, 100 range Hereford steer calves (averaging 375 to 400 lb. in weight) were bought to use as grazing animals. These were roughed through the winter on a ration which allowed them to gain about 150 lb. a piece. Pasture productivity was measured by grazing these steers across the pasture throughout the season, rotating them about once a week.

Tests over the full 3-year period continued to bear out this trend, although the years 1957 and 1958 were very dry ones. The brome-alfalfa mixture proved to be more productive than either of the straight grass pastures, but the former didn't respond to fertilizer as well as the others did. The average returns for the years 1956 to 1958 — measured in both dollars and animal gains — are shown in the following table:

Mixtures and Fertilizers	Lb. of Beef Produced Per Acre	Number of Steers Carried Per Acre	Returns Per Acre with Beef at $24	Fert. Costs	Net Return
BROME-ALFALFA					
No Fertilizer	208	1.05	$49.92	.....	$49.92
33-0-0 (100 lb./ac.)	243	1.23	58.32	-4.06	54.26
16-20-0 (200 lb./ac.)	265	1.28	63.60	-8.16	55.44
BROME					
No Fertilizer	179	1.01	$42.96	.....	$42.96
33-0-0 (100 lb./ac.)	206	1.18	49.44	-4.06	45.38
16-20-0 (200 lb./ac.)	253	1.31	60.72	-8.16	52.56
FESCUE					
No Fertilizer	173	1.02	$41.52	....	$41.52
33-0-0 (100 lb./ac.)	213	1.31	51.12	-4.06	47.06
16-20-0 (200 lb./ac.)	239	1.40	57.36	-8.16	49.20

As each fertilized plot got almost the same amount of nitrogen (16-20 doubled gives 32 N, 40 P_2O_5), it will be seen that the highest fertilizer response was obtained when phosphorus was included—especially when the pasture was straight grass.

Marred by a dry spring, the 1956 grazing season extended from May 25 to Aug. 30. The following year it was restricted to the period May 10 to July 26 because of a very dry summer, and was only slightly longer in 1958. However, if enough land is available, a stockman can extend his grazing season greatly by having spring and fall pastures.

A SIMILAR pasture experiment was started at Brainard, in the Peace River country, by the Beaverlodge Experimental Farm, on 27 acres of depleted soil which had been continuously cropped for 25 years. Three swards were also used in this test: creeping red fescue at 10 lb. per acre, fescue and alfalfa (Rhizoma) at 7 and 5 lb., respectively, and brome and Rhizoma alfalfa at 15 and 5 lb., respectively. The grazing animals this time were Hampshire sheep, allotted to the various pastures at two ewes per acre—one with a single lamb and one with twins. Again there was a check plot of each type which was given no fertilizer, then one treated with 11-48-0 at 300 lb. per acre, and another with 33-0-0 at 100 lb. to the acre.

As in the Lacombe tests, forage yields were much higher in the fertilized plots, the nitrogen-phosphorus treatment yielded more than the straight ammonium-nitrate, and the grass-alfalfa mixtures produced more than the plain grass. The average gains in pounds of lamb per acre for all pasture types were 137.4 lb. for unfertilized swards, 175.7 lb. for those treated with 33-0-0 and 219.4 lb. for those receiving the 11-48-0. In this case, the stockman's best bet by far was a brome-alfalfa mixture using the nitrogen-phosphorus fertilizer, which brought a whopping per acre return of 273 lb. of lamb.

At Kapuskasing, Ont., the per acre productivity and carrying capacity of improved pasture was measured under two (*Please turn to page* 50)

An Organization to do

Research for Farmers

New machinery has been set up in the Canada Department of Agriculture to improve the quantity and quality of research for farmers. This article explains the changes and gives the reasons for making them

• *Dr. Goulden (right) is the assistant deputy minister in charge of research for the Canada Department of Agriculture.*

by C. H. GOULDEN

THERE have been various comments in the farm press on the amalgamation of the research services of the Canada Department of Agriculture. The two services concerned were formerly known as the Experimental Farms Service and Science Service. On April 1, 1959, they will be joined together to form the new Research Branch.

Some of the comments have been enlightened and some not. In any event, we feel that it is our duty to inform the public as to exactly what is going on, therefore I am attempting here to explain some of the changes and give the basic reasons for making them. I am particularly anxious to show that a genuine attempt is being made to improve the quantity and quality of the research that is being done for the Canadian farmer.

To get the picture clear let us first look at the old organization and how it operated in finding solutions to farm problems.

BELOW I have listed the divisions of the two services and have indicated the co-operation required between divisions of the two services in conducting two projects:

Experimental Farms Service	Science Service
Animal Science	
Cereal Crops	Entomology
Apiculture	Botany and Plant Pathology
Field Husbandry	Botany and Plant Pathology
Horticulture	Botany and Plant Pathology, Chemistry
Forage Crops	Botany and Plant Pathology, Chemistry, Bacteriology
Illustration Stations	Forest Biology
Tobacco	

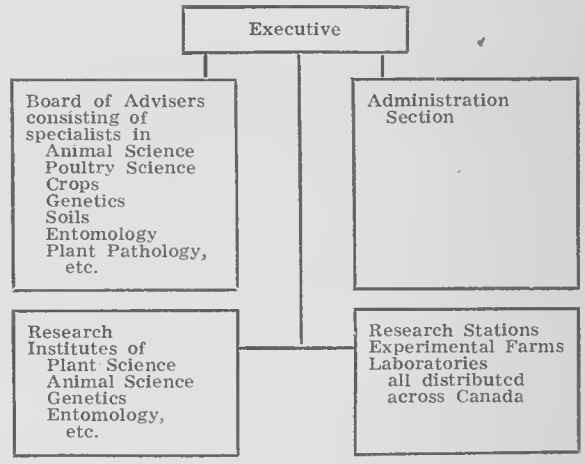
One project deals with the production of a variety of wheat that is resistant to disease and sawfly damage. The breeding operations are done by the Cereal Crops Division staff, but co-operation with plant pathologists, chemists, and entomologists in the corresponding divisions of Science Service is essential to the successful conduct of the work. The other project concerns fruit storage. It may be instigated by the staff of the Horticulture Division, but co-operation is required with bacteriologists, plant pathologists, and chemists. These projects are not exceptions. They are typical and exemplify the continuing need for co-operative work between divisions of the two services.

As another example, imagine an animal nutritionist (Farms Service) and a biochemist (Science Service) working together on a common problem at a location where there is an Experimental Farm and a Science Service Laboratory. Each has a different section head within his own institution. Each section head has a different officer in charge and a different divisional chief advising on the program; and the two divisional chiefs have different directors at Ottawa. On top of this the two research workers are probably in different buildings. All of this tends to discourage individuals from working together in spite of their best intentions.

These situations arise from having two distinct research services and from being organized in the Experimental Farms Service on a crop and animal basis and Science Service on scientific disciplines. The specialists in the disciplines are ultimately required in all projects, except the simplest type which can be solved by elementary methods, and co-operation is therefore unavoidable.

You may ask: what is wrong with co-operation between two services? There is nothing wrong with it and it has been encouraged, but surely nothing is gained by setting up an artificial administrative barrier between the scientists that must work together. In the new branch, the grouping of scientists is such that there will be the closest possible collaboration between those that are working on common problems.

WE are now ready to look at an outline of the new organization and see how it proposes to overcome some of the difficulties that formerly existed. A simplified chart is given below:



Simplified outline of Research Branch organization.

Although the divisions have disappeared there is still a group of senior officers who perform the same advisory function on projects as the divisional chiefs did in the old organization. This group is headed by a responsible official who sees that all phases of a problem are considered and not merely those phases corresponding to the interests of individual specialists. This is an extremely important group from the standpoint of the farmer. Any farmer, extension man, industrialist—in fact, anyone can send a communication to the Research Branch on a particular problem which he thinks should be studied. This will be sent along to the board of advisers (technically known as the Program Directorate) and it will receive careful consideration. It is, in fact, the duty of this group to search out problems, to evaluate them from the standpoint of their effect on the farmer's economy, and to recommend action accordingly. The new Program Directorate will devote its entire time to this task and we are sure that the end result will be a well balanced and efficient research program.

The program of the regional stations, the experimental farms, or the laboratories will be directed specifically to farm problems of the area in which they are situated. They (*Please turn to page* 53)

• *At the right is Dr. Robert Glen who has been appointed director-general of the reorganized Research Branch. He was acting director, Science Service.*

• *At the left is Dr. J. C. Woodward who assumes the position of assistant director-general. He was associate director of the Experimental Farms Service prior to amalgamation.*

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Through Field and Wood

by CLARENCE TILLENIUS—*No. 6*

LONG inky shadows lie across the forest opening. A solitary rampike gleams palely in the white moonlight and frost crystals glitter in the frigid air. The brooding woods are silent, save where here and there a tree cracks loudly in the biting frost.

A flicker of white at the edge of the darkness reveals a snowshoe hare leaving his day bed. Sitting up and listening intently a moment, he takes two cautious hops toward a willow bush in the clearing. Again he pauses to listen. The forest is profoundly still. Another hop and he is reaching for a twig when a silent shadow blots out the moonlight above him. Too late he senses his doom. A desperate leap, a single strangled scream as great claws pierce his heart, and it is over. There is a ponderous flapping of great wings as the limp body is half lifted, half dropped into the shadows and away. What had killed him?

The hush of the forest night is broken once again. From the far-off swamp comes a tell-tale sound that identifies the ghostly hunter, a low-pitched menacing call: Whuh who-o-hoo hoo, hoo! ringing through the silent glades. It is the voice of the arch-hunter, "the winged tiger," the Great Horned Owl. V

Fire Protection for Farm Buildings

[Guide photo

THIS barn on a Western Canadian farm was destroyed when hot pipe ashes ignited a bale of straw. Remember to keep an approved type of fire extinguisher at all building entrances, and check them periodically to see if they are serviceable. These can be supplemented with boxes of sand to combat oil or gasoline fires, and by water barrels at strategic locations. Burlap sacks soaked in water are handy for beating out small fires. Weed or insecticide spraying machines, equipped with a centrifugal pump, plus a hose and nozzle, make good emergency fire engines for farm use. V

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LIVESTOCK

Meeting competition from the other classes of meat

One Hour a Day To Handle 450 Hogs

[Guide photos

Bob Wernham shows intake where feed, delivered in bulk, is blown to a hopper in the roof of the old hog pen, which is adjacent to the new building.

SOME neighboring farmers are pointing an accusing finger at hog specialist Bob Wernham and saying it is fellows like him who are stealing the hog business away from them. They would be right, too, if hog producers had no competition to meet except from other hogmen. For this young man at Komoka, not far from London, Ont., has developed what may be the most highly mechanized hog operation in the country so far.

In his new open-front building, which is equipped with a 9½-ton hopper for receiving feed in bulk, an auger system to fill the self-feeders, and a mechanical gutter cleaner as well, Wernham can house 450 hogs at a time, and completely care for them in a little more than an hour a day. As a result, he can successfully hold down a full-time job in a local feed mill as well.

He marketed his first hogs this winter at the floor-price level and cleared $3.50 per hog over operating costs, which he figures to be the cost of feed, and regular payments on his building and equipment, calculated to be paid off completely in 3 years. He does not include the cost of his own labor. Already he is planning some further expansion. Unless unforeseen trouble crops up, there'll be no cutting back by him, despite low prices.

THIS kind of production is bound to squeeze small producers, and on that basis you would have to say that his accusers are right. But now that contracting and specialization seem to be spreading through the hog business; now that plentiful cheaply produced poultry meat is coming to market in increasing quantities; and beef cattle herds are building up in the West, it looks like the stage is set for plenty of competition, not simply for the housewife's pork dollar, but for her entire meat dollar. The prizes will go to those who produce meat, whether pork or beef or chicken or turkey, at attractive prices. In that light, Bob Wernham and

With merely a push of a button, the bulk feed is augered out of the overhead hopper directly into the self-feeding hoppers in the hog pens below.

others who are specializing aren't hurting the hog business. Rather, if their new-style enterprises continue to pay off, they are assuring the hog of a continuing important place in the meat industry of the future.

When Wernham decided to specialize in hogs, he found only one building on his farm that might be useful—an old gable-roofed hog pen. He retained this as a place to start his newly bought weaners, using oil and medicated feeds, if necessary, to bring them to a thrifty vigorous condition, before putting them into the open-front pens. Beneath the roof of the building, he built his feed hopper to eliminate the job of handling feed bags. This enables him to gain the $4 a ton discount his mill offers for bulk delivery.

Adjacent to this old building, he erected his new pole-type structure, with its labor-saving features. A push of a button is all that it takes to feed the pigs there. The system works so well, he now intends to install more overhead bins so he can buy starter rations in bulk too, and eliminate every feed bag from the place.

Handling manure is almost as easy. He built the concrete floors to slope down toward the gutter at the edge of the porch. It takes about 20 minutes a day to scrape manure off the concrete floor down into the gutter. From

Pigs keep dry in this solid-walled, draft-free bedded area; leave droppings in the feeding and water area.

there the gutter cleaner carries it right to the manure spreader for daily spreading on the fields.

WHILE the actual work involved is remarkably small, Wernham emphasizes that the pigs are not forgotten during the day. He says, that more than some animals they require constant watching. His wife Margaret keeps a close eye on things when he is at work.

"What about you and integration?" we asked him.

"I'm not involved," he replied. "I've got complete control of my operation myself. The firm that constructed the buildings allowed me time to pay for them. I get feed on time, and pay when the pigs are sold. So far, I have been able to buy the weaners myself. If, in the future, I need more money for more pigs, I believe I could borrow it from the bank."—D.R.B. V

LIVESTOCK

[Guide photo

Alex Blender's flock before some of the lambs were marketed as feeders.

Sheep Handling System Pays Off

ALEX BLENDER makes a living solely from sheep and the forage crops he feeds to them. To do this a man needs two things — a real understanding of them and a good system for handling them.

He started sheep farming on his own at Craven, Sask., in 1935 and stayed with them until 1947, when a plague of coyotes put him out of business. The introduction of 10-80 poison brought him back to sheep in 1950 with a bunch of ewes, mostly Rambouillet bought at Moose Jaw, 10 purebred Suffolks and 2 rams. He's had very little trouble with coyotes since that time. Dogs were a menace in 1957, but shooting and poison drove them away.

Located in the Qu'Appelle Valley, Alex's farmstead has hills to the south and east. There's a deeded half-section, a leased quarter and another quarter of his own, with 200 acres broken for brome, crested wheat and alfalfa. A flood in 1955 resulted in sour land, and dry weather the last two years made all but 35 acres temporarily unproductive. However, there's still plenty of grazing and enough slough hay for winter feeding. To see them through winter the flock needs about 2,000 round, 100-lb. bales.

His program begins in winter, when the sheep are out on the hillsides most days and return to the feedlot at night. Rams are turned out with the ewes from December 1, and lambing starts around April 21, by which time the crested wheat is usually nice and green. The ewes are fed oats from the middle of March to put them in good shape for lambing. As soon as they're due to lamb, Alex loads them in his truck and brings them into the yard, or to a well-lit corral at night. He visits them hourly, and moves them into a maternity barn for the lambing, with 4′ by 4′ box stalls for singles, and 4′ by 6′ stalls for twins.

After a day in the barn, and if the weather is suitable, ewes and lambs go into a corral with loose housing for a couple more days, before moving out to a 19-acre brome pasture. As soon as 50 ewes have lambed, and the lambs are at least 2 weeks old, they go into another field to wait until all the others have lambed. Ewes are trimmed to get rid of blood and manure, which would encourage maggots. Week-old lambs are taken back to the farm for docking, and bucks are castrated with "elastrators." All are dusted against sheep lice. It takes about 3 weeks to complete the lambing of 200 ewes, which last year produced 250 lambs.

The flock is then moved to fields or onto range. Oats are fed only for a week after lambing, except for some older ewes that need to be fattened up in the yard.

Shearing starts in June. Blender uses two adjacent pastures separated by fairly coarse wire, which enables lambs to cross from one pasture to the next in search of their mothers. The electric shearing takes place in one pasture and then ewes are transferred to the other. This is also the time for spraying ewes and lambs for parasites. The whole job takes 4 or 5 days, after which the wool is bagged and shipped to Regina.

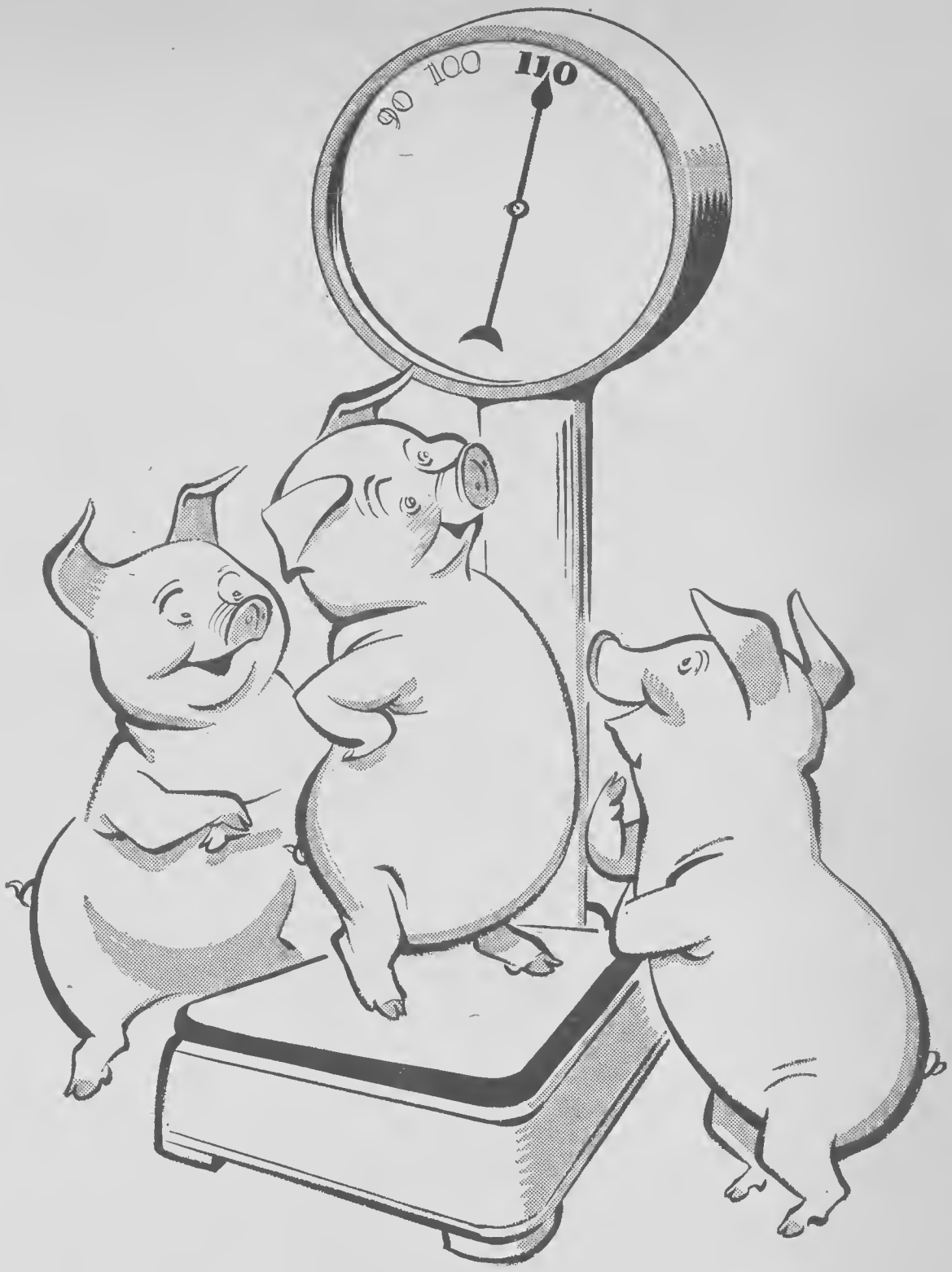
ALEX reckons wool should be at least 70¢ per lb. to give a fair return, but it has been as low as 40¢. The deficiency payment is based on 60¢ for top grade at Toronto. In his experience, wool from his district never goes above second grade, and he doubts if deficiency payments will solve their problems.

His wool, classified as "semi-bright," is kept fairly clean. He destroys most of the burdock and blue burrs on his land to keep them out of the wool. He never allows ewes to feed from racks, because they get the scruffs of their necks full of chaff when reaching into racks.

Feed racks are for fattening lambs. He has marketed them at 100 lb. as early as August, but last year he had to sell some as feeders in the fall, on account of a back injury that forced him to cut down his work. Alex believes there's a better profit if he finishes them himself, even if he has to buy feed. He's keeping back 35 ewe lambs to breed at the end of this year, and the remainder were sold at market weight or butchered for local customers and home consumption.

Alex Blender buys two rams most years. He tried crossing Suffolks with Hampshires to produce more wool, but the Hampshire cross lambs have taken too long to reach 100 lb. market weight.

"You have to keep a watch on sheep," says Alex. "But they don't take up too much time, especially if you have good fences. They earn a living for me and I like them."—R.C. √



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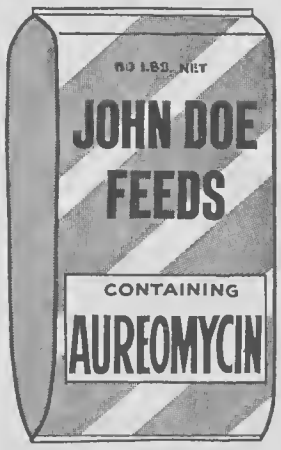

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Stilbestrol Lowers Costs

EXPERIMENTS with 24 steers at the Ontario Agricultural College were used to determine the value of stilbestrol in promoting rapid and economical weight gains in fattening beef cattle, and to compare the oral and implantation methods of administration.

The steers were divided into three groups during the 103-day feeding trials, and were fed corn silage, grain and hay. Animals in one group had 10 mg. of the drug orally, per day each, others were given 30 mg. implanted in the ear, and the third was a control group.

The steers getting the drug gained weight faster, used less feed for each pound of gain, and returned more money over feed costs than did the control group. Of the two treated groups, the implanted steers gave the best results. Treatment had no significant effect on trucking shrink, hide weight, carcass grade or 72-hour cooler shrink.

The orally treated group gained 8 per cent faster, and the implanted group 22 per cent faster, than the control group. Feed required per lb. of gain, and the cost per lb. of gain were as follows: control—18.2 lb. and 19.4¢; orally treated—16.9 lb. and 17.8¢; implanted group—15.9 lb. and 16.7¢.

The control group returned $149 over costs (on the basis of a 2¢ spread between purchase and selling price), the orally administered group returned $230, and the implanted group $260. √

Bacterin For Lamb Killer

ENTEROTOXEMIA will kill nearly all affected lambs and a quarter of the flock may be rapidly wiped out. That's why giving clostridium perfringens type D bacterin to feeder lambs should be a routine part of sheep raising, says J. G. O'Donoghue of Alberta Veterinary Services.

The disease appears suddenly in feeder lambs with very little warning. Lambs drop in a rigid convulsion with legs, head and neck extended. When losses occur, heavy grain feeding should be reduced immediately and you should call a veterinarian.

To counteract enterotoxemia, vaccinate lambs before they go on heavy feed. If the disease is detected in newborn lambs, it's sometimes necessary to vaccinate pregnant ewes and newborn lambs. √

New Iron Treatment

A NEW iron-dextran injection for pigs, which contains 150 mg. of iron in a 2 c.c. solution, is now on the market. This is a stronger solution than has been available in the past. When injected into the hams of three-day-old pigs, it is said to provide sufficient iron reserves to carry them through until they are taking sufficient feed to replenish their own body supplies. It is available for home treatment. √

When planning crop or livestock production, read GUIDEPOSTS on page 8.

LIVESTOCK

Cuts Losses and Increases Profits

[Guide photo

Murray Holt checks wet beet pulp and grain mixture. There's a danger that it will freeze during severe weather.

DISEASE prevention plays a big part in the feedlot operation on Murray Holt's farm at Raymond, Alta.

"Some people say antibiotics increase the cost of livestock feeding," he points out, "but so do dead calves. You can buy an awful lot of antibiotics for the price of one dead calf."

Murray buys about 200 calves at 400 to 500 lb. in the fall and feeds them through to August or September (950 to 1,050 lb.), according to the state of the market. He used to figure on a loss of about 2 per cent from shipping fever or pneumonia, brought on by the trip, or by changes of feed, or conditions which calves experience coming to a new place. Four or five years ago he started giving all calves a shot of penicillin the day they arrived at the farm to take care of any disease they might have picked up, then followed this with a recommended dose of aureomycin in their ration for the first 6 weeks of feeding.

"Raising a calf is like raising a baby," said Murray, "you've got to watch them pretty carefully at the start—you can't feed them too much too fast, or too concentrated a ration too fast."

Sometimes he gives a booster shot of penicillin later on if an animal appears sickly. This policy has put dollars in Murray's pocket because he has had no losses from the diseases mentioned since using antibiotics.

THE Holt farm totals about 240 acres, 160 of which are irrigated from the St. Mary River project. Crops raised are sugar beets, alfalfa hay, oats and wheat. Murray raises beets on a participating contract, feeds his oats and hay, but sells his wheat to buy feed barley. It pays him to do this for he can get his barley for about 65¢ a bushel. He considers sugar beets a good paying crop, and one particularly suited to his beef-cattle operation because he can utilize sugar beet pulp as feed.

"I use pulp as a bulk feed to cut down on my grain and hay requirements," he explained. "The way I figure it, I save $10 per head by using wet pulp instead of straight grain dry-lot feeding. Costwise, my feeding comes to about 14¢ per pound of gain, and my 'break even' point for selling is 22½¢ a pound."

Murray mixes his grain right in with the pulp to prevent the cattle from getting too much of it. Since he's been doing this he has never had an animal get sick from overeating. The ration, fed free choice, consists of hay, oat straw, beet pulp and grain, plus a heavy vitamin A supplement during winter. Animals are started on oats, then later go on an oats-barley mixture, For a special treat, they are fed sugar beet tops, which are windrowed and stacked after harvest and rationed out to the animals as long as the supply lasts. The cattle will drop whatever they are eating when the beet tops arrive, and are particularly fond of the crowns, which contain a lot of sugar.

His operation has always been fairly evenly balanced between cropping and livestock feeding—each enterprise with its own set of books, and each having to stand on its own feet financially. Not long ago, Holt bought about 17 head of purebred Shorthorns in Montana with an idea of using them to improve the quality of his feeder stock. But the bull market has been so good, he's gone into purebred breeding as a profitable sideline.

"As far as feeder animals go, I find crossbred steers best," he stated. "Angus-Hereford crossbreds are the best gainers."—C.V.F. V

DAIRYING

Ontario dairymen find that pasturing is not always best

Feed Wagons Supplement Grazing

[Guide photos

Keith Benner's homemade feeding wagon with the forage harvester attached.

IF you have a highway-crossing problem with the dairy herd, costly new pasture fences to build or you just want to bring new flexibility into your grazing program, a feeding wagon may be just what you need.

Dairyman Keith Benner at Aylmer, Ont., built his own, and carried the idea one step further, going entirely to zero grazing once he brought it into use. Benner grows 90 acres of corn as a cash crop, and milks a 30-cow herd as well. His farm is split by a highway, and he rents additional land on which the fences are old and rickety. Instead of rebuilding those fences and taking a chance on losing his investment, as well as perpetuating the highway-crossing hazard, he built his feeding wagon.

He built the wagon onto an old running gear, bought a forage harvester, and in 1957, started into a program of zero grazing. Now, the cows never leave their paddock during the summer, except to move into the barn for milking. They fill up at the feed rack, and then move to the shade to rest and ruminate. The cows like their new life of leisure, and Benner likes the economy of the program, and the extra milk he is getting.

Dairy cattle specialist John Dalrymple at the Kemptville Agricultural School in eastern Ontario, where two such wagons are in use, lists several more advantages. Use of the wagon allows a combination of pasture grazing and zero grazing, and he has detected no slackening off in production as the herd changes from one to the other. It enables emergency pasture crops like oats to be grazed off mechanically to help maintain summer production. Or it enables a dairyman to clip hay for green feed during the summer if pasture runs short.

Students at the Kemptville school built the wagon which proved to be their best, in 1958. Cost was only $100 for the axle, frame, plywood and old tires used. It's a low wagon (only 20″ from wagon bottom to ground) that can be hitched on behind the forage harvester to be filled, then dropped off anywhere, and plywood sides hooked up so cattle can eat.

An old truck frame was used in its construction, and the wheels were moved to the center to allow greater maneuverability. The box is 4′ high, 5′ wide, and 21′ long, and has feeding spaces for 22 cows. A low shelf extends out 1′ on either side of the box, except at the wheels.—D.R.B. V

This wagon was built at the Kemptville Agricultural School for only $100.

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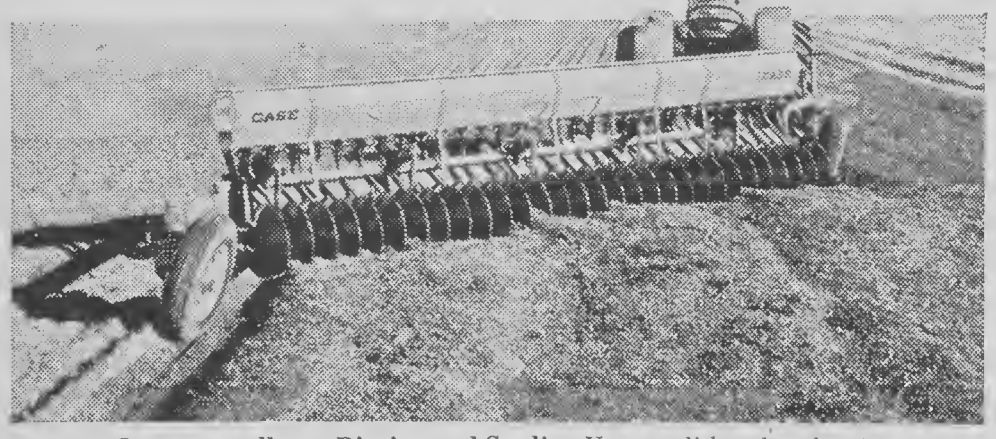

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59-5

DAIRYING

Oxygen For Sick Animals

OXYGEN can be fed simply to sick animals by a new method originating at the University of Wisconsin. A young heifer showed obvious signs of sickness, refused to eat, had a body temperature as high as 107°, and heart beat and breathing rates climbed. The diagnosis was severe broncho-pneumonia.

The immediate treatment was with sulfa and antibiotics to fight the infection, but the drugs were too late. Inflammation from bacteria in the heifer's chest cavity had sealed off lung passages through which oxygen moves into the blood stream. Within three days, the animal was near death from oxygen starvation.

As a last resort, they inserted a small tube into one nostril of the sick heifer and passed pure oxygen into her lungs. She showed marked improvement the first day, and was almost normal after 2 days of treatment.

Other cases have since been treated by this simple method, replacing the oxygen tent or oxygen mask. All they do is connect a few feet of flexible plastic tube to an oxygen tank with pressure and flow regulators. Then they lubricate one end of the tube, insert it in the nostril and tape it down to the nose. The tube is suspended from the animal's stall with a flexible band. This leaves the animal free to move about, lie down and eat while receiving oxygen. V

Hints for Calving Time

FIVE important items to remember at calving time are listed by Peter Herner, Manitoba Department of Agriculture, as follows:

1. A clean, disinfected and well-bedded maternity stall is desirable. Cow should have a slightly laxative ration for a week before calving.
2. Mouth and nostrils should be cleared immediately and calf rubbed briskly with cloth if the cow does not lick it.
3. Disinfect the calf's navel with iodine soon after birth. Extra teats can be removed with sharp scissors at this time.
4. Calf should be nursing half an hour after birth. Weaker calves may need to be helped.
5. Save extra colostrum (first milk) by freezing for future use. This can be warmed to 100°F and fed to a sick calf. V

Mastitis Control

TREATMENT is only part of a mastitis control program. Ontario Veterinary College recommends also good herd management, proper milking procedure, veterinary diagnosis when the disease appears, and veterinary treatment of infected cases to keep mastitis under control in dairy herds. By following this procedure, the huge annual bill for drugs and losses due to mastitis can be drastically reduced. V

SOILS and CROPS

Field Crop Recommendations For 1959

THESE recommendations for field crop varieties in 1959 have been issued by the provincial departments of agriculture. They represent the best information available after careful testing and observation, but it is impossible in such a summary as this to cater for every problem on each individual farm. Anyone with these special problems, such as plant diseases, insects, flooding and so on, would be well advised to consult agricultural representatives or the experimental farms.

Maps were prepared by the provincial departments of agriculture.

MAP of ALBERTA showing SOIL CLIMATIC ZONES

ALBERTA

(Varieties in alphabetical order)

Spring Wheat. Chinook and Rescue (sawfly resistant), Thatcher (zones 1, 2A, 2C). Chinook, Lake, Rescue, Thatcher (2B). Selkirk, Thatcher (2D, irrigated areas). Saunders, Thatcher (3A, 3B, 3C, 4A, 4B, 4C).

Durum Wheat. Mindum, Ramsey, Stewart (southern zones).

Winter Wheat. Kharkov M.C. 22, Yogo (zones 1, 2A, 2C, 3A).

Soft Spring Wheat. Kenhi, Lemhi 53 (contract with millers recommended).

Oats. Eagle, Exeter (zones 1, 2A). Eagle, Rodney (2B, irrigated areas). Eagle, Garry, Rodney (2C, 2D, 3A, 3B). Abegweit, Victory (3C, 4B). Eagle, Garry, Larain (4A). Abegweit, Exeter, Victory (4C).

Barley. Compana, Vantage (zones 1, 2A). Husky, Parkland (2B). Compana, Husky, Parkland, Wolfe (2C). Gateway, Husky, Parkland (2D). Harlan, Wolfe (irrigated areas). Gateway, Husky, Olli, Wolfe (3A, 3B). Gateway, Husky, Olli (3C, 4A, 4B). Gateway, Olli (4C).

Flax. Redwood, Rocket (zones 1, 2A, 2B). Redwing, Redwood, Rocket (2C, 2D, 3A, 3B). Redwood (irrigated areas). Marine, Redwing, Rocket (3C, 4B). Redwing, Rocket (4A). Marinc, Redwing, Sheyenne (4C).

Rapeseed. Arlo (earlier), Golden.

Fall Rye. Antelope, Dakold (hardiest), Petkus, Sangaste.

Spring Rye. Prolific.

Alfalfa. Grimm (except where bacterial wilt is problem). Ladak (winter hardy, higher yield than Grimm, resistant to wilt). Vernal (equal or superior to Ladak in hardiness and yield, wilt resistant, better for irrigated areas). Rambler (similar yield, but hardier than Ladak, promising as pasture alfalfa).

Sweet Clover. Arctic (hardy, medium fine stemmed, leafy and high forage yield). Erector (finer stemmed, blooms week earlier than Arctic, similar hay yield).

Red Clover. Altaswede (single cut, tall, late maturing, high yield, moderate disease resistance; blooms 12 days after Lasalle). Lasalle (double cut, less hardy than Altaswede; limited to seed crop in Alberta).

Crested Wheatgrass. Fairway (best pasture grass for drier areas, good pasture and hay for park belt, protein slightly below brome). Summit (yields more hay than Fairway, good in alfalfa mixtures, old stands in moist areas suffer more winterkill than Fairway).

Timothy. Climax (seven days later than common timothy, has leaf spot and rust resistance, good yield and quality).

ATLANTIC PROVINCES

(See also Nova Scotia)

Oats. Early: Ajax, Clintland, Fundy, Simcoe (zones A, B, C, D, E, F, H). Midseason: Abegweit, Garry, Erban, Scotian (A, B, C, D, E, F). Zone G—Alaska, Cartier (extra early); Ajax, Fundy (early); Abegweit, Erban, Scotian (midseason).

Fodder Oats (pasture supplement) Roxton.

Barley. Charlottetown 80, Fort, Parkland (zones A, B, C, D, E, F, H). Zone G— Olli (early); Charlottetown 80 (midseason).

Winter Barley. Hudson, Kenate (zone A).

Spring Wheat. Acadia, Selkirk (all zones except G).

Winter Wheat. Fairfield, Richmond, Rideau (zones A, C, D, E).

Winter Rye. Crown, Tetra Petkus (zones A, B, C, D, E, F).

Field Peas. Chancellor, Valley (all zones).

Field Beans. Kenearly Yellow Eye, Soldier—early. Clipper in zone A only, Lapin — midseason (zones A, B, C, D, E, F, H).

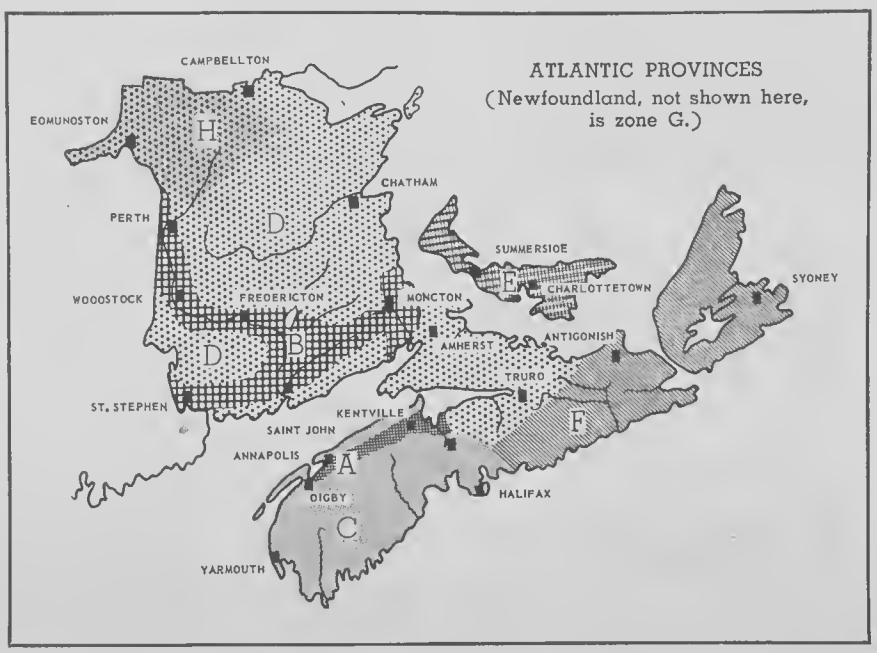
Buckwheat. Tokyo (all zones).

Timothy. Climax, Medon.

Orchard Grass. Hercules (zones A, B, C and favored locations); S37 (zone A).

Brome. Fischer, Achenbach (zones A, B, C).

(*Please turn to page* 32)



Take a look at the WHAT'S NEW column, page 49. There is likely a new product you could use.

SOILS AND CROPS

(Atlantic Provinces continued)

Alfalfa. DuPuits, Grimm, Narragansett, Rhizoma, Vernal (all zones).

Red Clover. Altaswede, Lasalle, Thomas (all zones).

Birdsfoot Trefoil. Empire, Viking (all zones).

Silage Corn. Warwick 150, Wisconsin 240, Warwick 210, DeKalb 65, Algonquin (in order of early maturity, longer season areas only).

Grain Corn. Warwick 150, Funk's G2 (zone A).

Swedes. Acadia, Ditmars, Laurentian, Wilhelmsburger (all zones).

Mangels. Frontenac (all zones).

NOVA SCOTIA

Oats. Early: Fundy, Simcoe, Ajax. Medium and late: Scotian, Abegweit, Erban, Beaver.

Barley. Two-rowed, rough-awned: Charlottetown 80, Herta. Six-rowed, smooth-awned: Brant, Montcalm.

Spring Wheat. Acadia.

Winter Wheat. Rideau, Genesee (Truro and West).

Winter Rye. Tetra Petkus, Dominant.

Potatoes. Early: Warba, Irish Cobbler, Fundy. Mid-season: Keswick, Avon. Late: Kennebec, Green Mountain, Sebago.

Field Beans. Lapin, Kenearly Yellow Eye.

Silage Corn. Warwick 210, DeKalb 65, Algonquin.

Kale. Marrowstem.

Rape. Improved Essex.

Swedes. Laurentian, Wilhelmsburger.

Mangels. Yellow Intermediate, Giant White Sugar, Frontenac.

Red Clover. Lasalle.

Alfalfa. Vernal, Rhizoma.

Birdsfoot Trefoil. Viking, Empire.

Timothy. Climax.

MANITOBA

(Varieties listed in order of preference)

Spring Wheat. Selkirk, Lee (all zones).

Durum Wheat. Ramsey (zones 1, 2A, 2B, 2C, 5).

Oats. Garry or Rodney, Ajax (all zones).

Hull-less Oats. Vicar (all zones).

Barley (C.W. grades). Parkland, Montcalm (zones 2A, 3, 4A, 4B, 5, 6, 7, 8).

Feed Barley. Herta, Parkland, Swan, Traill, Vantmore (zones 1, 2A, 2B, 4B, 5, 7, 8). Herta, Husky, Parkland, Swan, Traill, Vantmore (zones 2C, 3, 4A, 6).

Flax. Redwood, Rocket; Marine or Raja for delayed seeding (zones 1, 2A, 2B, 2C, 3, 5, 8). Marine or Raja; Sheyenne (zones 4A, 4B, 6, 7).

Rapeseed. Golden. For early maturity—Arlo.

Spring Rye. Prolific (all zones).

Winter Rye. Antelope or Dakold; Dominant (all zones).

Field Peas. Arthur or Chancellor (zones 1, 2A, 2B, 2C, 5, 8). Chancellor (zones 3, 4A, 4B, 6, 7).

Grain Corn. A.E.S. 101, Kingcrost KN2, Manitoba 164, Morden 74, Morden 77 (zone 2A).

Silage Corn. Morden 74 or Wisconsin 240; Wheatland Blend or Falconer; Rambow Flint (zone 2A). Falconer, Morden 74, Wisconsin 240, Wheatland Blend (zones 1, 2B, 2C, 3, 5).

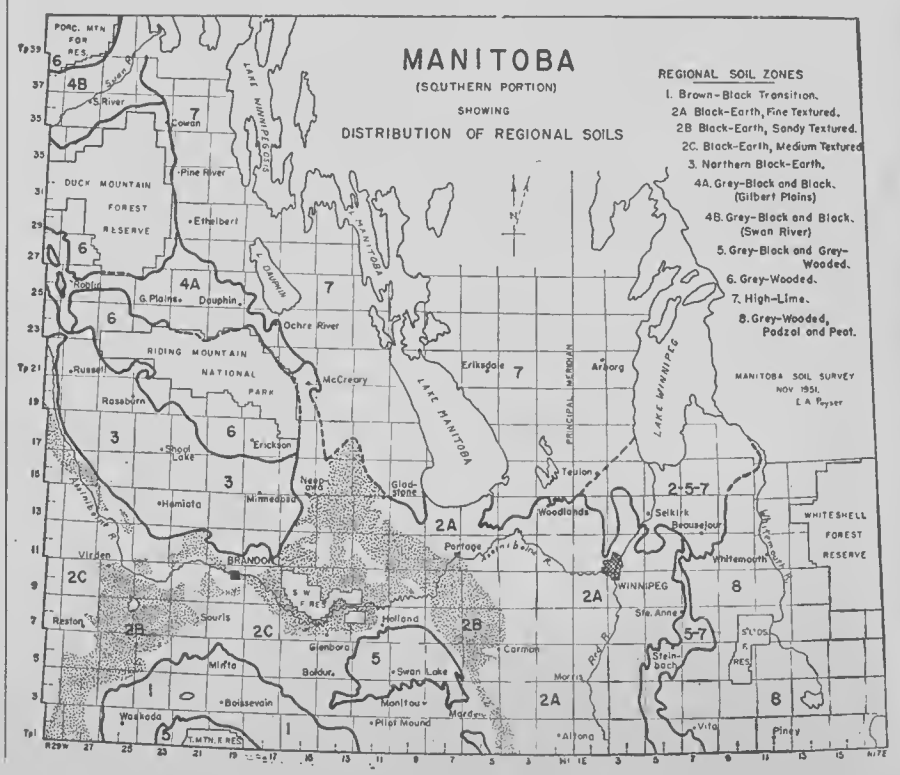
Alfalfa. Vernal, Ladak, Rambler, Rhizoma, Grimm (all zones).

Sweet Clover. Arctic, white; Erector, yellow (all zones).

Brome. Lincoln—Southern type (all zones).

Timothy. Climax (recommended for seed production).

Potatoes. Early: Waseca, Red or White Warba. Main Crop: Red Pontiac, Netted Gem, Cherokee, Kennebec, Columbia Russet; or Norland for trial only.



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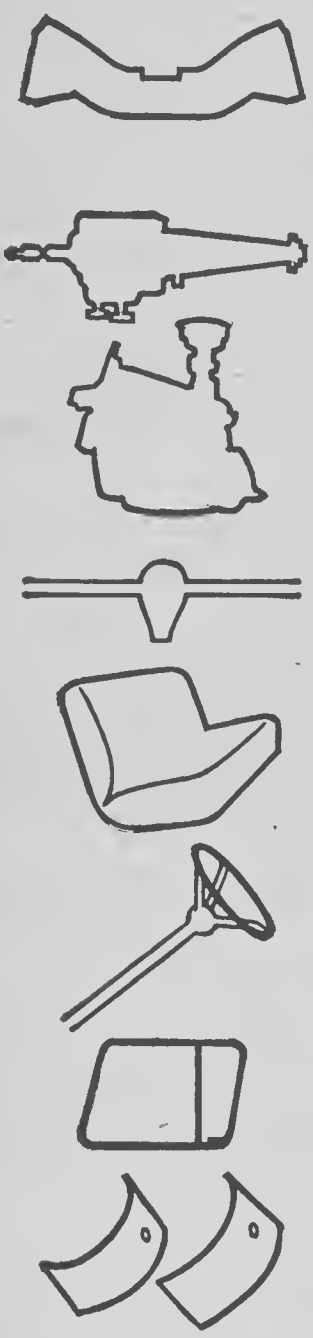

1 STURDY CROSS-MEMBER CONSTRUCTION

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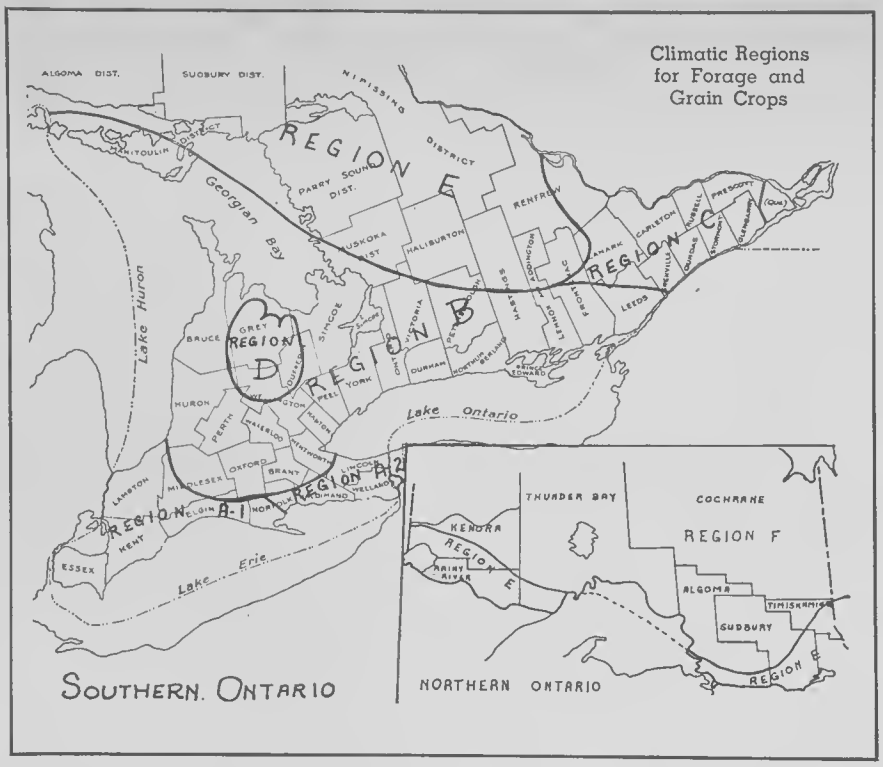
GMC TRUCKS

SOILS AND CROPS



ONTARIO

(Varities listed in order of performance)

Spring Wheat. Selkirk, Acadia (regions C, D). Selkirk (E, F).

Winter Wheat. Genesee, Kent (region A). Genesee, Dawbul, Richmond, Kent (B). Rideau, Richmond (C). Genesee, Rideau (D). Rideau (E).

Spring Barley. York, Brant (region A). York, Brant, Herta, Parkland (B, C). York, Brant, Parkland (D, E). Nord (F).

Winter Barley. Hudson (regions A, B).

Winter Rye. Tetra Petkus, (regions A, B, C, D). Imperial (E, F).

Spring Oats. Garry, Rodney, Simcoe (region A). Garry, Rodney, Vicar, Shield (B). Garry, Rodney, Shield, Vicar (C, D). Garry, Shield (E). Garry, Ajax, Shield (F).

Flax. Raja, Marine, Redwood (regions B, C, D). Redwing, Raja (E).

Buckwheat. Tokyo, Japancse, Silver Hull (regions B, C, D).

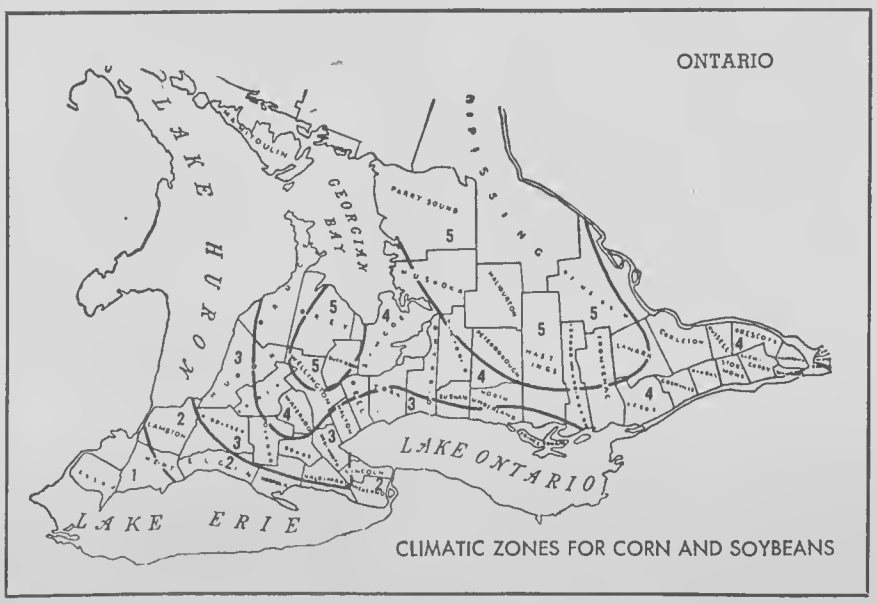
Millet. Crown (region B).

Peas. Chancellor, Arthur, Stirling (regions B, C). Chancellor, Arthur (D). Chancellor, Stirling (E). Chancellor (F).

Beans. Michelite, Sanilac (region A). Sanilac, Michelitc (B, C).

Soybeans. (e—early, m—medium, l—late). Zone 1: Lincoln—l; Harosoy and Hawkeye—m; Chippewa and Blackhawk—e. Zone 2: Harosoy and Hawkeye—l; Chippewa and Blackhawk—m; Comet, Hardome, Capital and Mandarin—e. Zone 3: Chippewa and Blackhawk—l; Comet, Hardome, Capital, Mandarin—m; Flambeau—e. Zone 4: Hardome, Capital and Mandarin—l; Flambeau and Comet—m; Acme—e. Zone 5: Flambeau—l; Acme—m.

Corn Hybrids. (in order of maturity, earliest first) 1, Pride 4; 2, Pride 5; 3, Funk's G40A; 4, Jacques 853J; 5, Warwick 277; 6, Warwick 265; 7, Pfister 28; 8, Pride 11; 9, Pfister 32; 10, Pride 20; 11, Pioneer 388; 12, United Hagie 24A; 13, Funk's G35; 14, DeKalb 56; 15, Funk's G11A; 16, Warwick 311; 17, DeKalb 58; 18, Pioneer 382; 19, Funk's G10; 20, Warwick 401; 21, Pfister 43; 22, Pioneer 383; 23, Warwick 505; 24, Pride PN 34; 25, Funk's G18; 26, Pfister 44; 27, Pioneer 377A; 28, Jacques 1053JA; 29, Funk's G176; 30, Pioneer X3007; 31, Pfister 55; 32, K-300; 33, United Hagie 30A; 34, Warwick 600; 35, DeKalb 244; 36, DeKalb 240; 37, Funk's



For Each Member of the Family . . .

The Country Guide's editorial staff provides inspiring and practical suggestions to help you succeed as well as for better living.

G23; 38, Pfister 56; 39, Pioneer 380; 40, DeKalb 222; 41, Pioneer 371; 42, Warwiek 605; 43, Pride D57; 44, Pfister 62; 45, Pioneer 349; 46, Jaeques 1108J; 47, Warwiek 700; 48, Funk's G30A; 49, DeKalb 251; 50, United Hagie 30C; 51, United Hagie 32A; 52, Jacques 1158J; 53, DeKalb 414; 54, DeKalb 406; 55, Pfister 244; 56, Pride D66.

Zone recommendations (e—early, m—medium, l—late). Zone 1: 26 to 31—e; 32 to 48—m; 49 to 56—l; 45 to 56—silage. Zone 2: 10 to 22—e; 23 to 31—m; 32 to 45—l; 31 to 54—silage. Zone 3: 5 to 8—e; 9 to 20—m; 21 to 26—l; 20 to 48—silage. Zone 4: 1 and 2—e; 3 to 5—m; 6 to 8—l; 8 to 36—silage. Zone 5: 1 and 2—grain; 5 to 20—silage.

Alfalfa. Vernal, Ranger — general plantings; DuPuits, Alfa — silage or early hay (regions A, B). Vernal, Ranger — general; DuPuits — silage, early hay (C). Vernal (D). Rhizoma, Vernal (E, F).

Red Clover. Lasalle (regions A, B, C, D, E). Alaswede, Lasalle (F).

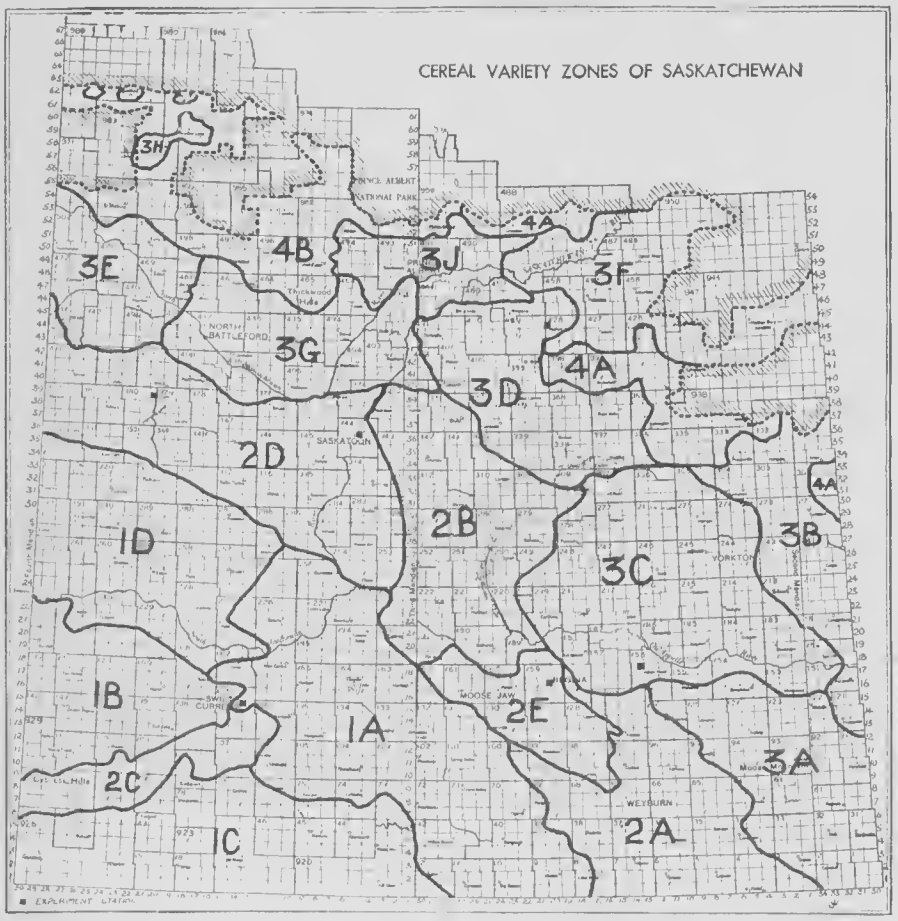
Birdsfoot Trefoil. Empire, Viking (regions A, B, C, D). Empire (E, F).

Ladino. Certified (all regions).

Timothy. Climax, Medon (all regions).

Brome. Lincoln, Aehenbaeh, Canadian (all regions).

SASKATCHEWAN



(Varieties in alphabetical order)

Spring Wheat. Chinook, Thatcher (zones 1A, 1C). Chinook, Reseue (sawfly eontrol) Thatcher (1B). Chinook, Lake, Reseue, Thatcher (1D). Selkirk (2A, 2E, 3A, 3B, 3C). Chinook, Selkirk, Thatcher (2B). Reseue, Thatcher (2C). Chinook, Lake, Thatcher (2D). Lake, Selkirk, Thatcher (3D, 3G, 3H, 3J, 4A, 4B). Lake, Thatcher (3E). Selkirk, Thatcher (3F).

Durum Wheat. Ramsey, Stewart (zones 1A, 1B, 1C, 1D, 2B, 2D). Ramsey (2A, 2E, 3A, 3B, 3C). Stewart (2C).

Oats. Ajax, Fortune, Garry, Rodney (zone 1A). Ajax, Garry (1B, 1C), Eagle, Exeter, Garry (1D). Ajax, Garry, Rodney (2A, 2C). Eagle, Exeter, Garry, Rodney (2D, 3E, 3F, 3J). Exeter, Garry, Rodney (2B, 3D, 4A). Garry, Rodney (2E, 3A, 3B, 3C). Eagle, Exeter, Fortune, Garry, Rodney (3G). Eagle, Fortune, Vietory (3H). Eagle, Exeter (4B).

Barley. Vantage (zones 1A, 2C). Compana, Vantage (1B, 1C). Husky, Vantage (1D). Husky, Vantage, Vantmore (2A). Husky, Parkland, Vantage (2B, 3C). Hannchen, Husky, Parkland, Vantage (2D). Vantage, Vantmore (2E). Husky, Parkland, Vantage, Vantmore (3A, 3B). Hannchen, Husky, Parkland (3D). Husky, Montealm, Parkland (3E, 3J). Hannchen, Husky, Montealm, Parkland (3F). Husky, Parkland (3G, 3H, 4A, 4B). Husky, Montealm, Parkland (3J).

Spring Rye. Prolific.

Fall Rye. Dakold 23 or Antelope.

Flax. Norland, Redwood, Rocket (zones 1A, 1B, 1C, 1D, 2B, 2C, 2D, 2E, 3A). Norland, Redwood (2A, 3G). Marine, Norland, Redwood, Rocket (3B, 3C, 3D). Marine, Norland, Rocket (3E). Marine, Raja (3F, 3J). Redwing (3H, 4B). Marine, Norland (4A).

Rapeseed. Polish types for short frost-free season or delayed seeding. Argentine types — Golden, Argentine, Swedish—require about same growing period as wheat.

Field Peas. Dashaway, Chancellor (early). Arthur (late).

Beans. Norwegian (brown seeded). Norwhite (white).

(*Please turn to page* 36)

SOILS AND CROPS

BRITISH COLUMBIA

(These are variety recommendations, not a list of every crop that might be grown.)

Hay and Silage. Vancouver Island: Sun fall wheat, Austrian winter peas, Eagle oats, Vernal alfalfa, LaSalle red clover. Lower Mainland: DuPuits alfalfa, LaSalle red clover, Climax timothy. Okanagan-Mainline: Ladak alfalfa, Manchar bromegrass. Southeast: Ladak alfalfa. Central: Rhizoma alfalfa, Altaswede and Manhardy red clover, Arctic and Erector sweet clover.

Pasture and Hay. Vancouver Island: Sun fall wheat, white Dutch or wild white clover, Eagle oats. Lower Mainland: Commercial Danish or S143 orchard grass (irrigated). Okanagan-Mainline: Fairway crested wheatgrass, Ladak alfalfa, Manchar bromegrass, Eagle oats, Danish orchard grass, wild white clover. Southeast: Ladak alfalfa.

Silage. Vancouver Island: Wisconsin 355, Wisconsin 531, DeKalb 65 corn; Mammoth Russian sunflowers. Lower Mainland: DeKalb 65, Pioneer 383, Warwick 401, Warwick 311 corn (silage and green fodder). Eagle and Ajax oats, Italian ryegrass, Storm fall rye, Dawson's Golden Chaff winter wheat. Okanagan - Mainline: DeKalb 65, Pioneer 382 corn (early silage); DeKalb 240, Pioneer 352 (medium silage).

Cereals. Vancouver Island: Sun winter wheat, Trebi barley, Turf winter oats, Abegweit or Eagle spring oats, Austrian winter peas, Chancellor peas. Fraser Valley: Abegweit, Garry and Rodney spring oats. Central: Saunders spring wheat, Ajax oats, Olli barley.

Potatoes. Vancouver Island: Early Epicure, Warba (early). Netted Gem, Green Mountain, Columbia Russet, Burbank (main crop). Central: Warba, Epicure (early). Netted Gem, Green Mountain, White Rose for seed, Gold Coin (main crop).

Does Curing Alter Feeding Value?

SCIENTISTS in the Animal Husbandry Department, Ontario Agricultural College, have tested four of the popular methods of curing and harvesting hay, by feeding samples of each to groups of cows. Their conclusions: the samples would be equal in feeding value when fed according to the methods of the average dairyman.

The following methods of curing were used:

1. Field-cured, loaded with hay loader and stored loose.
2. Field-cured, baled and stored as such.
3. Field-cured, chopped with the forage harvester and stored as such.
4. Barn-cured, baled. Hay was stored with about 20 per cent moisture, and no supplemental heat was used.

A few slight, but not significant differences showed up in the trials. The cows being fed barn-cured baled hay ate slightly more, and produced a little more milk than the others.

All hay used in the experiments came from the same field, and was cut the same day. V

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The Controls let you handle the baler right from the tractor seat. With P.T.O. models, you can shift from transport to operating position, raise and lower the pick-up! On engine models you can also regulate the throttle speed and engage or disengage the engine. There's no need to keep jumping on and off the tractor. You save time . . . you save effort! Tractor-Seat Controls are standard equipment on Super Hayliners 68 and 78.

And now, with the introduction of the new Hayliner 67, you get leaf-saving Flow-Action and many other big benefits of New Holland baling: high capacity, positive tying, built-to-last construction—at a new low price.

FLOW-ACTION PRINCIPLE, greatest baling advance in 19 years, eliminates old-fashioned auger and wadboard. Strong aluminum tines measure off exact amount of hay, distribute it *gently* and *evenly* throughout bale chamber. Result—the finest bales you've ever seen!

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COMPLETE CROP-HANDLING LINE • FERTILIZER DISTRIBUTORS • FORAGE BLOWERS • FARM WAGONS • BALER TWINE AND WIRE

SOILS AND CROPS

Laying Out The Shelterbelt

SPACE trees properly if you want a successful farmstead shelterbelt on the Prairies, says Adam Crookshanks of the Indian Head Forest Nursery Station, Sask. If trees are spaced 4 feet apart it may be difficult to cultivate between rows, but no work is needed within the belt after 4 or 5 years. Shade from closely planted trees prevents weed growth. Furthermore, a permanently summer-fallowed strip, up to 20′ wide on each side of the belt, provides a moisture reserve and prevents weeds and grasses from entering the belt from outside.

A closely planted belt occupies little space and develops into a dense wind barrier. Leaving 10′ or more between rows allows you to use field cultivating equipment, but only for a few years. Branches soon prevent this, and yet it is many more years before a tree canopy is formed to shade the ground. In the meantime, weeds and grass become established.

Spacing of broadleaf trees in rows should not exceed 4′ or 6′, regardless of distance between rows. Evergreens may be spaced 4′, 6′ or 8′ apart in the row, and they should be 15′ or 20′ from broadleaf species. V

Brome or Orchard For Beef Pasture?

ARE you wondering what species of grass to seed with the legumes for your beef pasture? Results of trials conducted by the Department of Animal Husbandry, Ontario Agricultural College, indicate that brome grass may be better than orchard grass, when used in grass-legume mixtures. Over a 3-year period, brome-legume pasture gave 59 lb. more beef per acre than the orchard-legume pasture.

Mixtures used were: alfalfa, 10 lb.; ladino, 1.5 lb.; white Dutch clover, 1.5 lb.; and either 12 lb. of orchard or 15 lb. of brome. V

Tobacco Needs Potash

TOBACCO needs a lot of potash. A 1,500 lb. crop of good quality requires at least 100 lb. of potash, compared with only 12 lb. phosphate and 50 lb. nitrogen, according to Milton Watson, Ontario Department of Agriculture tobacco fieldman. Half of the potash taken up by the plant is removed when the leaf is harvested, and the remainder returns to the soil through stalks and roots.

He warns that it is possible to give tobacco an oversupply of potash, lowering quality and delaying maturity, particularly on soils high in nitrogen.

At Delhi Tobacco Substation they found that 120 to 140 lb. of potash per acre was needed for top yield and quality on soils rated medium to high in potash by soil test. This would be supplied by 1,000 to 1,200 lb. of 2-12-12 fertilizer per acre. For soils low in potash, 2-12-16 fertilizer should be applied. Losses from fixing and leaching can be cut to a minimum by applying all the potash as part of a complete fertilizer in bands at planting time. V

Planned Crops For More Livestock

[Guide photo
Jim Hird has controlled erosion with this useful catch of Grimm alfalfa.

A FORAGE program keeps George Hird and his son Jim pretty busy on their farm at Treherne, Man. One of their recent projects was to make a bunker silo and fill it with corn as an experiment. During the first winter, their Shorthorn cows made gains of up to 200 lb. on the silage, after coming in rather thin from pasture in the fall.

With that kind of success, the Hirds have started to put a cement floor in the silo, and will place a shed over it, with double doors at each end to enable them to drive through with a tractor. The idea is to set up self-feeding gates at each end of the silage, so that the cows can feed at one end and steers at the other.

Up until recently, the steers have been fed oats, barley and cracked peas, with the peas also doubling as a cash crop. They have been sowing peas after corn, because the corn takes a lot of nitrogen out of the soil. They also use manure from their cattle as a top dressing for the corn.

Meanwhile, Jim has been working on a project of his own a few miles from the home farm. He took a rough, sloping quarter section and started to build up fertility and check extensive sheet erosion. In 1955 he summer-fallowed it, and sowed wheat in 1956. He switched to oats and alfalfa in 1957, and last year took off the first hay crop, despite a very dry season. The alfalfa has certainly helped to stop the erosion, and once it has become firmly established and has yielded a few hay crops, Jim will pasture cattle there. He has dammed a spring-fed creek to provide them with water.

Last summer, the Hirds had 48 Shorthorn cows, a crop of 45 calves, and 32 yearlings. They kept 10 of the yearling heifers for breeding, and hope to build their cow herd up to 100 head. That's why they are putting a lot of thought into a forage program. —R.C. V

Plan farm production to produce maximum returns. Watch GUIDEPOSTS market forecasts, page 8.

WORKSHOP

Oiling Hint

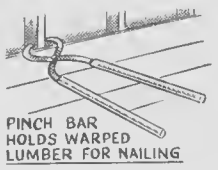
Solder a small washer about ¼" from the end of the oilcan spout. The washer will open up and hold back the spring-loaded cap of an oilhole. It doesn't obstruct the view and the exact number of drops of oil can be released.—S.C., Fla. √

Hedge Clippiug

One problem with hedge clipping is how to manage all that bulky electric cord—300 feet in our case—without getting it snarled. This is what we've done. We tied the clipper end of the cord to the bale of a 5-gallon 2,4-D pail, and placed an old section of stovepipe in the pail. Then, starting at the knot, we curled the cord around the pipe in the pail. The outlet end is then at the top of the pail and we pay out the cord as needed, moving the pail along the hedge. The cord is soon recoiled and the pail is handy for storing it.—A.S., Sask. √

Warped Boards

I have had no more trouble with warped boards since I used this method. I draw them up tight with a pinch bar, which I made from ¾" rod and ½" pipe, welded and bent to the shape shown in the illustration. This holds the warped lumber while it's being nailed.—J.J.T., Alta. √



Heat Control

When it is essential that heat of soldering or brazing is confined to a certain area on a work piece, in order to prevent similarly joined parts from separating, use a raw potato. Cut and pack the potato where heat must not affect the work, and hollow the potato where heat is to be applied. The water content of the potato will keep seams intact.—H.J., Pa. √

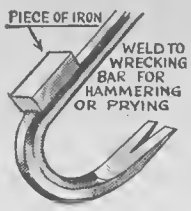
For Small Bits

An eyeglass case with a tight lid will make one of the best holders available for small drill bits, which tend to get mislaid so easily. —D.F., Alta. √

Keeping Glue

A lot of glue is wasted by letting it dry out in the bottle or tube. The first time you open it, rub a little oil around the top of the container before replacing the cap or lid. When you need to open it again, the lid will come off easily and there will be no dried glue.—H.M., Pa. √

Dual-Purpose Tool



If you fix a rectangular piece of iron onto the back of your wrecking bar, you can use it also as a hammer. Weld it securely and this will enable you to use the one tool both for pulling and pounding spikes. I find this a very handy tool around the farm, and much better than carrying both a hammer and wrecking bar at the same time.—K.M.F., Sask. √

Painting Wire Fence

Use a roller to paint a woven wire fence. You'll find it much easier than using a brush, and it makes less mess than a spray gun. There is a special roller cover with long fibers, but the regular cover will do.—D.E.F., N.B. √

Mud Scraper

Don't send Junior's outgrown skates to the dump, you can use the blade to scrape your boots. Use a hacksaw to cut through the rivets that hold the skate to the sole. Then just upend the skate and nail it securely to one of the porch steps. It keeps mud and snow out of the house.—I.M., Alta. √

Sagging Gate

A garden gate that sags can be pulled easily into square using a turnbuckle. You can buy a turnbuckle and rod to fit your gate, or save a little money by using two loops of heavy galvanized wire with the turnbuckle. Use the buckle to pull the high side, where the hinges are, to the lower side at the corner that swings free.—A.N.F., N.B. √

Stanchions for Calves

Calves are always hard to feed with a pail, but I find the stanchion-like divisions illustrated here can simplify the chore. The method of construction is simple and obvious, but just be sure that the spacers are wide enough that the calves can't reach one another. With one space for each calf, you go along and feed them as you come to them. —H.A.H., Man. √

Post Holes

If you have to dig post holes in heavy clay, a pail half-filled with old crankcase oil will help. Dip the digger into the oil every once in a while, and this will prevent the clay sticking to it. —E.M., Mich. √

Nailing Hardwood

When driving nails into hardwood, dip them in linseed oil, which will lubricate the nails.—D.E.F., N.B. √

HORTICULTURE

Giberellin On Vegetables

SINCE the first flush of enthusiasm a couple of years ago, there has been some sober testing and re-appraisal of the value of giberellin as a growth stimulant for plants. Recently, Dr. A. C. Ferguson of the University of Manitoba released results of tests made there on horticultural crops. Here are his comments:

Celery. Seed treatment – average plant height in treated plots was slightly more than the untreated until transplanting, but untreated plots recovered faster and maintained a slight advantage in height. Foliar treatment –marked increases in plant height were evident within a week after spraying, but there were no differences in height between treated and untreated at harvest.

Peas. Giberellin foliar sprays produced a marked increase in height through to harvest, with heights increased as concentrations increased. However, seed yield was depressed by treatments in all cases.

Radish. The most marked effect on radish was an increase in length of tap root through foliar spraying, and the hastening of flowering through both seed and foliar treatments.

Wax beans. Plant height increased in general, especially with foliar applications of giberellin. Seed treatments produced many growth abnormalities that proved lethal. Seed yield data was made invalid by bacterial and halo blight, but it was noted that disease was more severe in plots treated with giberellin.

Onions. These appeared to be unaffected by seed or foliar treatments. Effect on bulb dormancy is being studied.

Tomatoes. Increased plant height resulted from foliar sprays, but flowering was retarded and yields were greatly reduced.

Cabbage. Foliar treatments with giberellin tended to delay head formation and to increase stem length, resulting in soft, poorly formed heads.

Dr. Ferguson considers that at this time the future of giberellin lies in its ability to stimulate flower production and to break the dormancy in certain plants. Work is continuing with a wider range of plants. V

Tomatoes Under "Hot Caps"

HERE'S a way to grow tomatoes from seed, reported recently by Stan Sheard, horticulturist with the Saskatchewan Department of Agriculture. The basic equipment is a flower pot and "hot caps," made of paper or plastic. The idea is to hurry the development of the seedlings for greater production and earlier ripening.

Around April 15, start up to 50 seeds in a 5" or 6" pot or tobacco tin filled with vermiculite. May 15, set the pot outdoors for a few days to harden the seedlings. May 20, transplant seedlings into the garden and cover them with hot caps (cost is about 5¢ each). The seedlings are 2" to 3" high at this time. June 10, the tomato plants will likely have grown high enough to push against their covering. Remove the hot caps or slit them to let the plants grow through. Fear of frost damage will have passed by that time.

The big advantage of this system is that tomatoes do not have to be transplanted in earth-filled boxes before being planted in the garden. It also avoids a severe setback when they're planted out. A disadvantage is that hand weeding may be necessary if weeds grow under the hot caps.

A hot cap is shaped like a cone, with heavy paper as a stiffener. It holds heat inside, while admitting light through the top of the cone. V

Grow Asparagus –It's Not Difficult

PEOPLE think there is a lot of work attached to growing asparagus and also that it is difficult to grow. As a grower on a commercial scale I can state that it is a hardy plant, easy to grow and maintain, and for the amount of food there is less work than any annual crop.

Some growers start with seed. Others purchase year-old plants. The advantages of plants is that a year is saved in getting the bed underway. For the home garden, I would recommend plants.

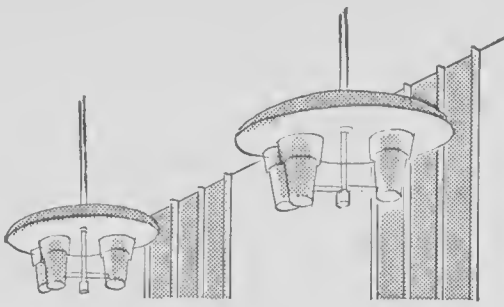
Do not rush planting in the spring. The one time when asparagus plants can be injured is by frosts when the shoots are just above ground. While injury in this way is not so important to older plants, it can severely check the young transplants. A deep furrow 6" to 8" deep is opened and the crown of the plant is placed at bottom of furrow, roots carefully spread, with plants 18" to 24" apart. Cover with only 2" to 3" of soil. Filling in can be done later in the year, when the plants have made a good growth.

Plants will make a quicker, stronger growth if they are watered with a solution of ammonium nitrate or nitroprills, one tablespoon to a gallon of water. As the crop ages it will respond to application of manure or commercial fertilizer as few other crops will. The bed must be kept absolutely free of weeds the first and second years. After that, it is not so important, but I may say that commercial growers have lost hundreds of acres because they failed to control weeds the year of planting.

No pickings or cuttings should be made the year of planting. Even the second year only one picking should be taken. The essential thing is to build a strong root system. The third year picking can be carried on for a 2-week period, and after that for a 6-week period, but always stopping by June 15 to give plants time to build up a reserve for the next year's picking. The planting should last for 15 to 20 years and improve the yield if well fertilized.

There are two methods of harvesting the asparagus. One is cutting the stalk off well below the surface of the ground with a sharp knife. This is the

(*Please turn to page* 42)



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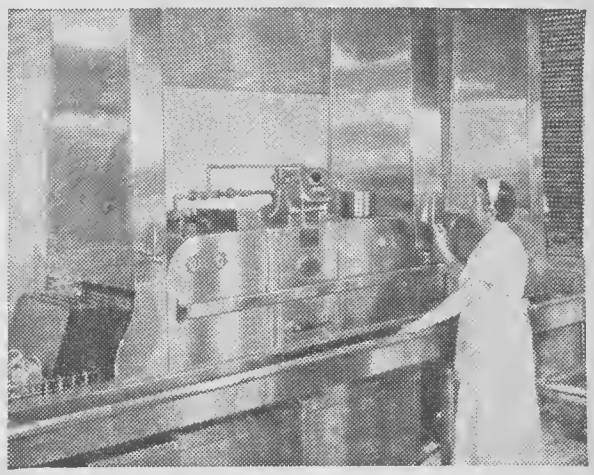
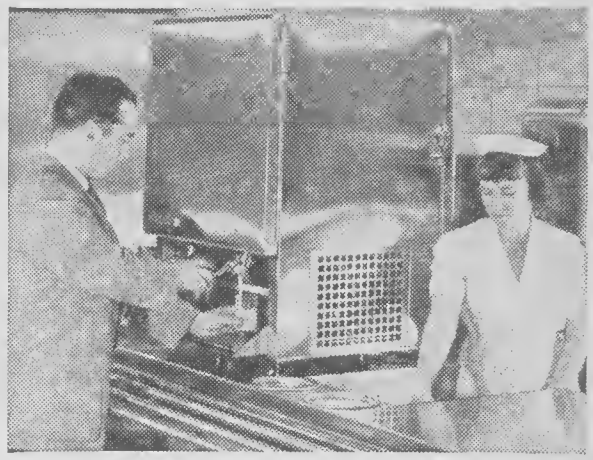
Nickel-containing stainless steel coffee urns are good-looking, easy to clean and resistant to corrosion.

In Canadian restaurants, the trade mark of cleanliness is Stainless Steel

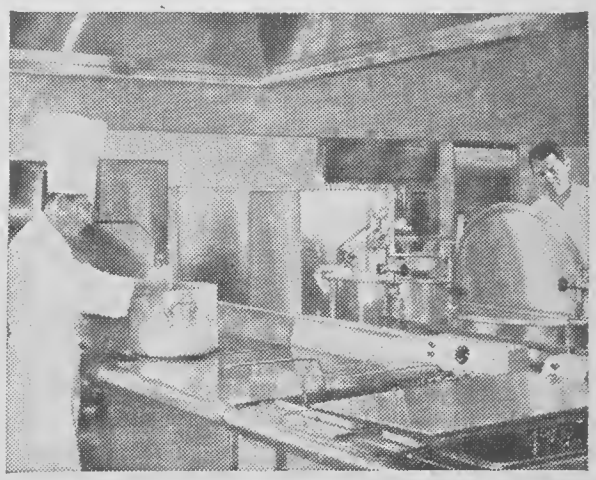
CONTAINING INCO NICKEL



Nickel-containing stainless steel is used in commercial dishwashing machines to withstand corrosive detergents.



Milk dispensers and refrigerators made of nickel-containing stainless steel, inside and out, protect the purity of foods.



Kitchens of modern restaurants use nickel-containing stainless steel soup kettles, pots, pans, sinks and counter tops.

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HORTICULTURE

method used for the fresh market. The part of stalk below ground is not edible and must be eut off before eooking. The other method is to snap the stalk off at the surface of the ground with the fingers. This is quite easily done and therc ean be no injury to shoots still below the surface. This is the method required if selling to canneries. Picking is done when shoots are 4″ to 6″ above ground, but will remain tender up to 10″. If there is a danger of frost, pick everything above ground.

What about varieties? For years Mary Washington has been the standard and is a good variety. Reeently, the Experimental Farm at Vineland, Ont., developed from the Mary Washington a strain they named Viking. I have an equal aereage of each variety. My experience is that Viking will give at least 30 per eent higher yield with larger stalks and a lower pereentage of eulls.

The general plan of management by eommercial growers is to disk up the field the day picking is eompleted and fertilize with manure, or a eomplete commereial fertilizer, or both. The field is well disked in the fall just ahead of freeze-up to break up the summer's growth. Then in the spring, when the growth is about to start, it is disked again and well harrowed to kill weeds and level ground. From this you ean judge what you should do in the garden.

In buying roots for planting out, don't go for the big roots. My best stand has come from roots that would no more than cover the spread of the hand. I believe the reason the smaller roots are superior is that they are younger and there is far less danger of injury in digging and replanting.

Plant out a bed of asparagus and get food enjoyment year after year.—R. G. Thomson. V

Honeysuckle with Edible Berries

by PERCY H. WRIGHT

ONE of the honeysuckle speeies available in nurseries is *Lonicera edulis coerulea,* which name indieates that its berries are blue and edible. However, most of its berries are anything but edible, they're too bitter even to sample.

Nevertheless, the name indicated to Georges Bugnet (pronouneed Byoun-yay) that there had been some reason for it, and he located two plants which borc large, blue, edible berries. These have been named Julia Bugnet and Georges Budget. The first one is described as "very produetive of blueberry-like fruit, which when processed into jam or preserve, makes a product similar to blueberry but with a slight tang, as though flavored with black currant." The second is described as "similar, except that the fruit is somewhat stronger in flavor, larger, but not quite so productive."

Both varieties are also valuable as ornamentals. That is, they are completely hardy, of relatively dwarf growth (up to about 7 feet), and have pale blossoms in profusion in the early spring. They make a shapely bush that possesses considerable adaptation to shade, as well as the ability to survive drought conditions.

Though not abundant yet, both the Bugnet selections are available from a northern Alberta nursery. V

An Easy Crop To Keep Producing

WHY not grow raspberries? A plantation is easily established, not difficult to maintain, and should be productive for 8 to 10 years with reasonable carc. Raspberries do well on soil suited to field erops, but prefer a well-manured and deeply plowed soil. Spring planting is best, using recommended varieties. If they eome from a neighbor, use only the well rooted, one-year-old canes or spring suckers.

C. W. Carlberg of the Swift Current Experimental Farm, Sask., says that you will get fair yields of fruit from plantations that are neither staked nor pruned, but larger fruit and higher yields ean be expeeted if you prune in the spring. Remove old canes and thin the year-old canes to 5 or 6 per linear foot along the row. You ean support them with fenee posts down the eenter of the row, stringing wire along each side of the posts so the eanes grow between the wires. Cultivate close to the plants, but not deep enough to injure the roots, and keep rows to 12″ wide.

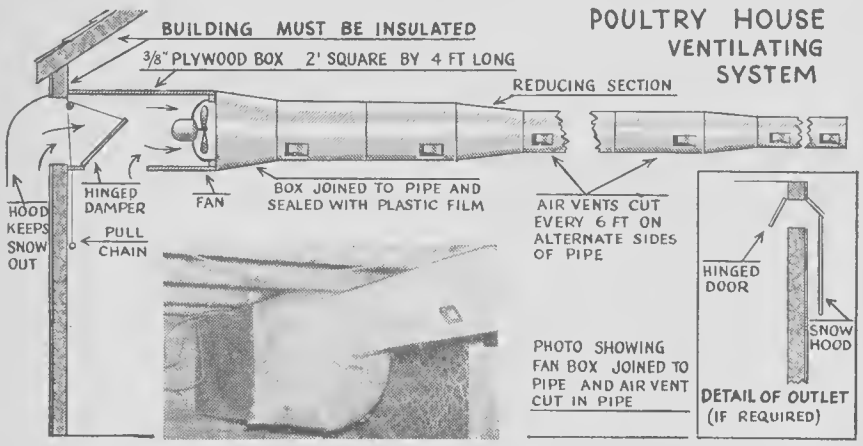
Harvest regularly as the fruit ripens, using shallow baskets to avoid crushing the berries.

For winter proteetion, you ean bend the eanes to the ground and eover the tips with earth. V

POULTRY

New Brunswick poultrymen called in the engineers

Ventilation Controls Humidity in Poultry House



Sketch of poultry house ventilation system. Photograph shows box enclosing fan and plastic film connector to air duct. Note vents in side of the duct.

POULTRYMAN Frank Bustin didn't have to be told that hens give off about three times as much moisture in their breath as other farm animals, in proportion to their body weight. On cold winter days, ammonia fumes in his three-storey poultry house made his eyes water, even though the pens were well-insulated, and equipped with both fans and windows for ventilation.

During the severe winter of 1956-57, Bustin, and other New Brunswick poultrymen decided their poultry-house humidity problem was getting worse. New poultry housing techniques, like the use of deep litter, and larger pens, as well as the crowding of more birds into those pens, were aggravating it. They called on the province's department of agriculture for help.

The solution came from poultry specialists Les Wood and Bernard Bartlett, and engineer Arnold Roberts, who designed an inexpensive forced air ventilator. Then, they built a trial unit.

Says Wood: "It has given improved ventilation in every house in which it was installed. Most of those who gave it a try have installed units of their own now, and the idea is catching the interest of poultrymen in other provinces too."

The unit consists of a forced air ventilator which draws cold air from outside, mixes it with a regulated amount of warm air from the pen itself, and forces the mixture through a large metal duct, in which are cut vents for release of the air evenly through the pen. Bustin calls it the answer to his ventilation problems. He built and installed units in each of four brooding pens last winter.

To make the box for the fan, he cut a single sheet of 4′ x 8′ plywood into four pieces, 2′ x 4′ each. He mounted the fan inside the box, which he set against a hole cut in the outside wall of the pen. A hood, built over the opening on the outside, keeps out snow and rain. A damper for the box was made by cutting the bottom sheet of plywood, and hinging it, so it could be raised up into the box to give whatever mixture of outdoor air was desired. A thermostat located near the center of the pen

POULTRY

automatically shuts off the fan if the temperature drops too low.

Mr. Bustin had a local tinsmith make his ducts. They decrease in diameter, as they extend across the pen, by the use of "reducer" sleeves. He joined the duct to the fan box by means of plastic film.

The system calls for use of a fan with a capacity of ¾ to 1 c.f.m. per bird. Wood recommends a V-trough hung under the duct to carry off condensation water if necessary.

"This system is particularly useful in irregularly shaped rooms," adds Mr. Wood, "because it carries air to wherever it is needed. But to be successful, the house *must* be insulated." —D.R.B. V

Poultry Change The Prairie Pattern

AN eviscerating plant capable of processing 30,000 lb. of chicken and turkey a day is nothing new. But when it's located in a small Saskatchewan town, it becomes a symbol of the revolution that is taking place in Prairie agriculture.

Located at Wynyard, this plant offers part-time employment for more than 50 people in the district, it gives poultrymen within an 85-mile radius a first-class outlet where poultry are dressed and packaged to meet supermarket standards, and it channels the product toward the highly populated areas of Ontario and Quebec.

Lloyd Crawford, president of Kelsher Creamery, which operates the plant, says they used to handle around one million lb. of poultry at the creamery, but had to send the birds elsewhere to be eviscerated. With the new plant, and its production-line methods, they were well over the million mark after 3 months' operation, and were doing the whole job. The plant is operating at the start for only 4 months of the year, with an average daily output of 22,000 to 23,000 lb. of poultry meats, and so there is plenty of room for expansion to meet an increasing demand.

Saskatchewan, partly because of an abundance of grain and also relatively cheap land, is now a major turkey producing region, and is coming up fast in the chicken business. Farms are switching to specialized production, and this company is encouraging the better ones to go in for tonnage. Flocks supplying the plant are usually 500 birds and up.

Mr. Crawford feels that the time is not ripe for intensive broiler production in the province, but with expanding markets and the development of suitable strains, broilers will definitely come. There are now nine eviscerating plants in Saskatchewan, with a capacity well above the present volume of production. The oldest of the plants was opened only 6 years ago, and the industry has developed fast in that time.

The Wynyard plant follows the modern pattern. Trucks bring in crates of live poultry at one end, where they are hung on slow-moving racks, humanely killed, scalded, plucked, eviscerated, and have heads and feet removed in a matter of minutes. Each carcass is inspected by Dr. Maurice Morissette, a Federal Health of Animals Division veterinarian, as they go by on the production line. Then they are chilled, sealed in polyethylene bags, boxed and held in cold storage ready for daily deliveries to major distribution centers. The location is good, because Regina, Saskatoon and Yorkton are all only 100 miles away on good roads.

The company also operates its own turkey farm, which is especially useful in filling gaps in the production schedule if other farm deliveries slow down. It is good insurance, because farmers are not supplying birds under contract.

The way Mr. Crawford sees it, the eviscerating plant is good for the Wynyard community, providing the kind of industry that a small town needs and putting extra money into the people's pockets. It's good for poultrymen, who have this assured outlet for their birds, if they meet the Federal health requirements. It's also good for Saskatchewan in helping to break away from the strict wheat economy and to tap important markets in the East.—R.C. V

[Guide photo

Not only poultry farms, but the community benefits through employment and greater flow of money provided through the small-town eviscerating plant.

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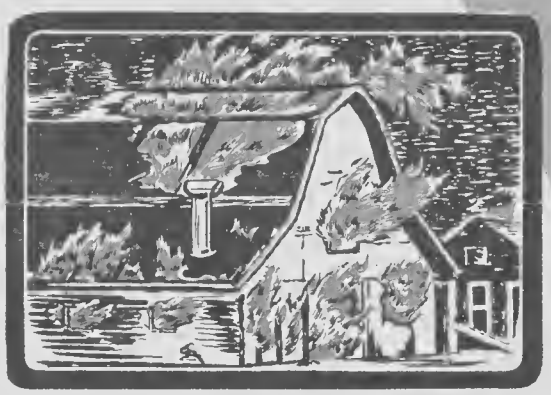

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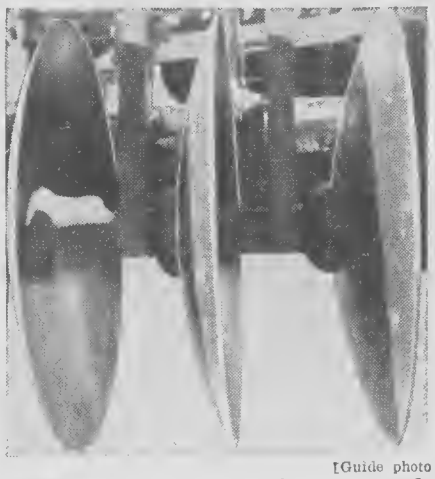
FARM MECHANICS

Disk Settings



[Guide photo

One-way disks. Angle of cut is angle between a line from edge to edge of a disk and the direction of travel.

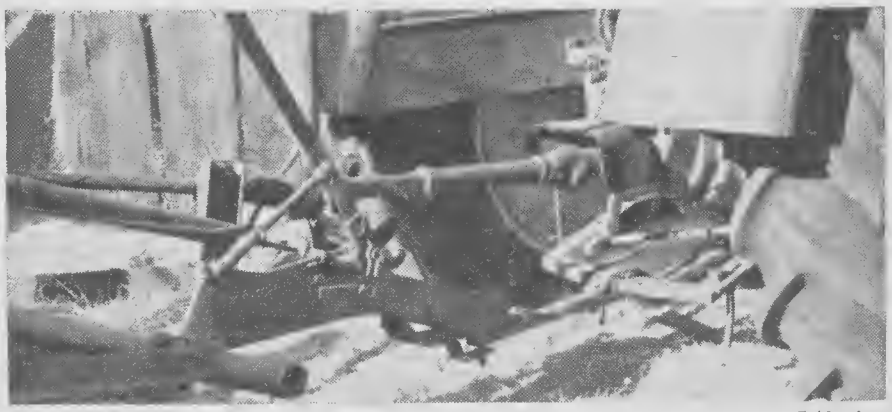
IN operating one-way disk implements, the diameter, spaeing and angle of eut of the disks determine the depth settings needed for seeding or effeetive weed eontrol, states J. L. Thompson, agrieultural engineer at the Swift Current Experimental Farm.

The eorrect depth of setting for the implement to ensure a eomplete cut of the surface soil is determined by the amount of "overlap" of the disk furrows. On smooth land, the disk should be set at least ½-ineh deeper than the bare minimum required to ensure this "elean" cut. But on rough land, the setting will have to be even deeper to compensate for the unevenness and allow a elean eut aeross the whole width.

A good rule to follow is to increase the depth of eut with each increase in spacing and deerease in disk diameter. For example, a 16- or 18-ineh disk with a spaeing of 7 inches would require a deeper cut than a 20- or 24-ineh disk with the same spaeing, if a clean cut of weeds is to be obtained. If you want clean tillage, you need a maximum depth of setting when using a 30° angle of cut, and a minimum setting for a 50° angle of eut.

When seeding with a disk equipment, the wide-angle setting shouldn't be used where the spacing is greater than 8 inehes. This is partieularly important in areas where swathing is praetieed. But where clean euts are necessary to eontrol weeds, and shallow seeding is desirable, the maehine should be operated at an angle of cut from 40° to 50°. This wide angle setting should also be used, and the depth increased, where the land surface is rough, in order that the disks will cut all the weeds.—C.V.F. V

Cover That Drive Shaft



[Guide photo

ONE way to get all tied up in your work is to forget to put a protective eover or screen over a whirling drive shaft sueh as this one. If your clothing is old and tattered, the maehine will whip it off of you some day and wrap it around that shaft. If you're wearing a strong new pair of overalls, it'll wrap you around the shaft. Don't worry about being able to fit in there—the maehine will eut you down to size.—C.V.F. V

Portable Back Scratcher

[Guide photo

Roland Amery, Crossfield, Alta., utilized a truck chassis, a cable and a pair of coil springs to make this portable back scratcher for his cattle.

FARM MECHANICS

Tandem Tractors For the Heavier Work

by TOM KEMPLING

The author's tandem tractor used successfully for the past 2 years. This shows two 12' diskers with packers attached, which can operate at 4 m.p.h.

ON the average farm in Western Canada the farmer requires two different power units. For the heavy work such as disk seeding and summerfallowing he needs the largest tractor available to get the work done on time. On the other hand, for jobs such as swathing, haying and choring around the yard, a 3-plow tractor has ample power, is more maneuverable and is more economical to operate.

The income from the average farm of 640 acres or less does not justify the purchase of both a large and a small tractor, and if the farmer uses two small tractors for the heavy work, an additional operator is required which again increases the cost of production.

In an effort to solve this problem, a lot of experimental work has been done in both North America and overseas with the tandem hitch, whereby two 3-plow tractors are hitched together and require only one operator. One of the leaders in this experimental work is W. F. Buchele, associate professor of Agricultural Engineering at Michigan State University.

What are the advantages of the tandem tractor? Some of them are as follows:

1. Ample power for heavy work. The experiments show that the tandem can pull more than the two tractors can separately. This is mainly due to the fact that the second tractor travels in the track of the front one, and also the resistance of front wheels is removed.
2. Improved traction. The traction of the tandem compares favorably with that of a crawler.
3. Power take-off. The second tractor can be used solely to operate the power take-off, while the front one is used for traction. This offers a much more flexible unit than a single tractor with live power take-off.
4. For light work the tractor can be easily unhitched, thus providing two economical and easy to maneuver units.

However, the type of tandem tractor hitch shown in the picture presents a new problem in safety. Many tractors have a tendency to rear up in front, and with the added weight of the rear tractor on the drawbar, the front tractor becomes more unstable. This difficulty can be overcome by removing the front wheels from both tractors and installing a vertical king pin which prevents any longitudinal movement between the two units.

ON my 600-acre farm I have used the tandem tractor shown in the picture for the past 2 years with very satisfactory results. Fortunately, from the safety standpoint, these particular tractors are very stable and I have not found any tendency for the front tractor to rear up at any time.

The picture shows the outfit seeding with two 12 ft. diskers and packers attached, traveling 4 m.p.h. For summerfallowing I use an 11 ft. blade weeder pulled at 6 m.p.h., and two 8 ft. tillers pulled at 4 m.p.h.

The controls for the second tractor consist of a clutch lever and a throttle lever, both mounted on the radiator within convenient reach of the operator. The air intake on the second tractor had to be extended because of the dust thrown up by the rear wheels of the front one. The hitch between the two includes two heavy coil springs which cushion the shocks and any unevenness in draft. No special effort was made to co-ordinate the speed and power of the two engines. These tractors are diesels and I merely adjusted the fuel pumps so that each engine throws an equal amount of black smoke on a heavy pull.

After 2 years of experience, I believe that the tandem tractor offers the most practical solution to the problem of providing power on the average farm in Western Canada. V

Periodic Checking Pays

CHECK fuel, water and oil pressure of your tractor before putting a load on the engine. Check the air cleaner daily, and even more often than that under very dusty conditions. Check and adjust the air pressure in the tires at least once a month, and clean out the cooling system at least once a year. Service the ignition system and check engine compression between seasonal operations. V

Laying Out Your Farmstead

WHEN planning a farmstead, you will naturally want it to be attractive, convenient and labor-saving. To achieve that you will have to leave enough space for proper arrangement of buildings, keeping future expansion in mind. Approximately 5 to 10 acres will be needed.

C. A. Cheshire, Alberta's extension engineer, suggests you choose relatively flat land, but with a slight slope, to make construction of driveways easier and prevent excessive amounts of water in depressions. A southwest slope is excellent for drainage, drying and wind protection. If you can't do this, make sure that at least the barnyard and other drainage is not toward the house or a well.

Locate your well on the highest point of land to avoid pollution. Consider wind direction if you want to keep objectionable odors away from the house, particularly when you're raising hogs. In most parts of Alberta, the prevailing winds blow from the northwest, so it's as well to have barns southeast of the home.

To have sufficient freedom from dust, the house needs to be located at least 125′ from the road, or 175′ if there's any chance of road expansion. Too great a distance from the highway means extra cost for construction and maintenance of the driveway. V

Insulated Portable Silos

SILAGE hasn't frozen or spoiled in these small portable experimental silos at the Central Experimental Farm, Ottawa. These structures, which measure 18 by 7 feet each, were built for research trials on grass silage. To combat freezing, they were designed with plywood as the inside lining, and masonite on the outside, with fiberglass bats between. They were capped with plastic sheeting when filled last summer.

When they were opened in January, they were free from either frozen or spoiled silage. Each silo is built on a movable platform, which can be hauled anywhere on the farm by a tractor.—D.R.B. V

Rats and Plastic Pipe

ONE of the hazards of plastic pipe on the farm is rat damage. However, usually they damage pipe only near the surface, such as where it leads into a building. At such spots it is as well to substitute galvanized pipe, says Jack Peck of the Saskatchewan Department of Agriculture. Most of the water line can still be plastic because it's buried too deep for rats to bother. V

[Guide photo

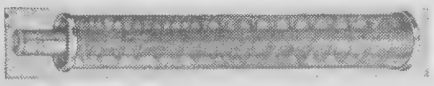
These silos, each on a separate movable platform, can be hauled wherever they are needed on the farm. Also, they have resisted freezing in the Ottawa tests.

WHAT'S NEW

Prefabricated Pens

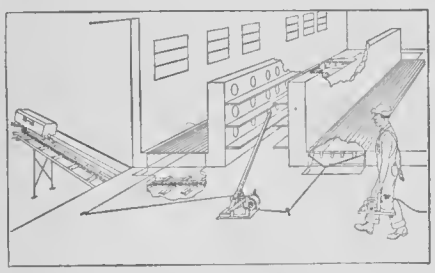
Steel mesh panels, 3′ high and any desired length, make these pens easy to erect or dismantle. One man can assemble 10′ square pen in half an hour without special tools. Gates are 2′ 6″ wide with tubular steel posts. (B. Greening Wire Co.) (244) V

Strainer for Sprays



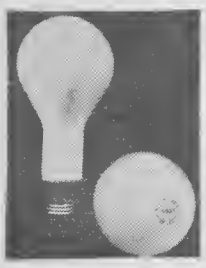
This suction strainer is for rigs spraying a large volume of liquid per minute. It will reduce clogging and pressure losses. Attached to intake hose it draws liquid from within 1½″ of bottom of tank or drum in any position. (Spraying Systems Company.) (245) V

Poultry House Cleaner



Combining some features of a barn cleaner with power-operated scoops, this equipment is said to handle cleaning problems in all existing types and sizes of poultry houses, with different models for large and small operators. It is designed for versatility. (Badger Northland Incorporated.) (246) V

Long-Life Lamps



Claimed to last 3,400 hours, compared to the standard 750, these new incandescent lamps also have sturdy filaments and supports for heavy duty farm use. (Solar Electric (Canada) Corp.) (247) V

For further information about any item mentioned in this column, write to What's New Department, The Country Guide, 1760 Ellice Avenue, Winnipeg 12, giving the key number shown at end of each item, as—(17).

Continued from page 13

FARM WITHOUT FRILLS

by cattle as pasture, and it produees well.

The Ransoms don't eover the silage, but chop the last few loads as finely as possible and spread them over the top. The silage is packed with a tractor, and has good drainage down into the ravine.

On the higher ground, they have made small fields of 12 to 15 acres, with hedges between to eut down wind erosion. These have proved useful for seed production and for alternating pastures.

LAST summer, they had half an acre of Rambler alfalfa for seed under contraet, starting with an allocation of 3½ lb. They were also growing registered Parkland barley and Selkirk wheat seed for aeceptanee after field inspeetion. They were able to get in on the ground floor when Garry oats and Rambler were new, and liking this type of work, they hope to build seed growing into a major operation.

One of the busiest pieces of equipment around the farm is a Cat tractor they picked up cheaply. Bill took out the motor and was able to rebuild it. Now it is paying for itself easily through clearing their own land and in custom work for others. Bill also made a front-end loader, all exeept the eylinders, and Don has used it to move rocks and for working in a gravel pit, which paid for this equipment too.

Clearing and breaking new land on 2 quarter sections, away in the bush, has shown the good sense of investment in equipment, and is opening the way for inereased production. After clearing and breaking, they sow alfalfa, which has always been one of the main tools for building fertility and stopping erosion. They have harvested as much as 4½ tons of alfalfa (dry matter) per acre, and better than 60 bushels of Selkirk wheat after 4 years of alfalfa.

THE Ransoms regard trees as another integral part of good farming. They have planted them extensively, and one reason they can leave their cattle out all winter is that shelterbelts cut down the winds and keep snow from drifting over the yard. Natural plantations of trees are also put to good use.

Using farm lumber, they built a machine shed with Turtle Mountain poplar for studding. Sliding doors cut off the rear section, which has a separate entranee and can be used as a heated workshop and a garage for a tractor in winter. Their motto might well be to figure out what's needed and do it as well and as inexpensively as possible.

Sid Ransom has had more than erosion, cattle breeding and seed produetion in mind throughout the years. His aim has always been to see that his sons have a good education first, and a farm that offers them opportunities if they choose to work on it. Although he will say they have done no more than make a start, there's a lot of good farming in progress on the Ransom plaee, and no laek of enthusiasm and ideas to carry it through. V

Continued from page 18

DOES PASTURE GROW HUNGRY?

fertilizer treatments: (1) ammonium phosphate (11-48-0) at 400 lb. to the acre applied every 3 years, plus ammonium sulphate (20-0-0) at 100 lb. per acre applied the second and third year; and (2) superphosphate (0-20-0) at 1,000 lb. to the acre applied every 3 years. In 1957, yearling steers were turned in on the test fields to measure the increases in animal gains. The fields fertilized with ammonium phosphate carried more animals than those receiving superphosphate, outyielded the latter in pounds of beef produced per acre by 16 per eent, and, in forage produced, by 50 per cent.

GRAZING tests begun at the Experimental Farm, Lennoxville, Que., in 1957 on three pasture types: Kentucky Bluegrass – white Dutch elover; timothy - ladino clover; and, timothy-birdsfoot trefoil. These tests showed heavier animal gains and greater carrying capacity for the timothy-ladino elover pasture the first year. The timothy-birdsfoot trefoil pasture trailed the other two by 50 and 60 per cent respeetively, in carrying capacity, forage produced and animal gains. Before seeding, the test area received 2 tons of ground limestone, 4-18-24 at 500 lb. per acre and 20 lb. of borax per acre.

IN Nova Scotia, fertilization tests at the Nappan Experimental Farm on pasture land which had been under sod for 15 years showed the best response when treated with 100 lb. of nitrogen per acre (probably 33-0-0 at 300 lb. to the acre) applied June 30, plus an annual dressing of 0-80-60. This treatment produced 400 lb. per acre more dry matter (forage with moisture content removed) than phosphate alone (0-80-0), 800 lb. more than potash (0-0-60) alone, and 1,600 lb. more than when no nitrogen was used.

Fertilizing pasture land pays similar dividends to the milk producer. Tests conducted last summer on seven Ontario dairy farms by Dr. George Cooper, Cyanamid of Canada Ltd., in co-operation with various agricultural representatives, showed that returns could be almost doubled with proper applications of nitrogen fertilizers, after the lime, phosphorus and potash needs of the land had been met. In these trials, dairyman Cleason Snyder of Waterloo got $278 worth of milk per acre from the plot top-dressed with urea and $203 worth from the one treated with ammonium nitrate, as compared to only $167 per aere from pasture reeeiving no nitrogen.

Fertilizer needs differ from area to area—even from farm to farm. But these results from across the country indieate it would pay any farmer who grazes livestoek or produces forage to take a long look at his forage production and find out what his partieular needs are.—C.V.F. V

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- makes soil hold moisture better
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- can be used for cultivation

ROTARY HOE

The Harroweeder:

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- can enter fields earlier after rain
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- is easier to transport
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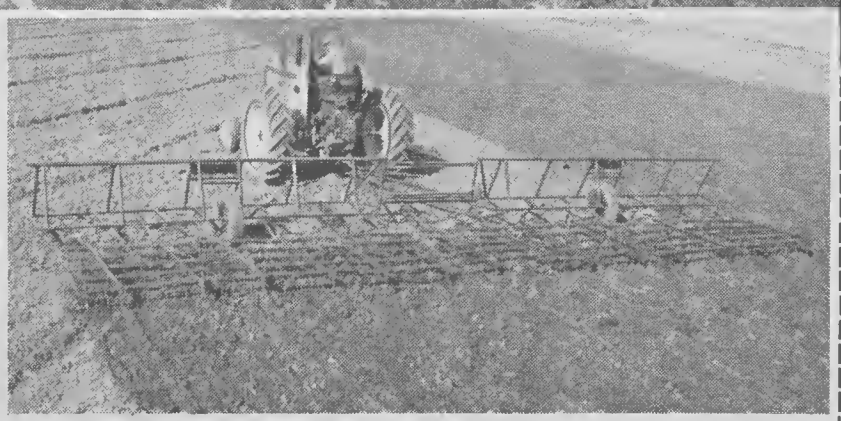

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Continued from page 16

TREAT YOUR FORAGE RIGHT

Using this multi-unit hay drier on the John Bull farm at Brampton, Ontario, three men can put up 10 tons each day. Drier handles six wagons at a time.

STATIONARY MULTI - UNIT DRIER

THE best feed combination for a dairy farm is still dry hay and corn silage, says John Bull, owner of Canada's biggest Jersey farm, which is at Brampton, Ont.

Basis of the Bull haying program, in which 400 acres of hay are harvested a year, is a permanent-type hay drier built to his own specifications. The drier will handle six wagons at a time, and has sufficient capacity to dry the 10 tons of hay these plywood - sided, slat - bottomed wagons will hold.

Mr. Bull invested over $6,000 in his set-up. He bought a hay conditioner, built and equipped the drying shed, and built the wagon boxes. He says it is a cheaper system than any available for handling silage, because 3 men can put through 10 tons each day.

Haying begins about May 24 on the Bull farm, when quality is at its peak, and continues for a month. At the start, the hay is normally cut and conditioned one day, and baled (when moisture drops to 45%) and drawn in the next, and left in the drier overnight. As the season advances, hay may be cut, baled and drawn in the same day. If the baler would take higher-moisture hay, Mr. Bull says this program could be speeded up still further.

The drying unit consists of a shed-type structure with a propane crop-drier, which will turn out a 135-140°F blast of air (4 million British thermal units per hour). The air blast goes through a plywood and tin duct along the top of the shed, which has six openings, with a wood-framed canvas hood hanging down from each. Each hood fits snugly over a wagon box, but has a trap door as well which can be closed if all wagons are not being used. Fuel cost is about a dollar for each ton of hay dried.

Mr. Bull says he recouped half of his investment the first year he had the drier, when a dry summer forced him to feed hay while the cows were still on pasture. "The quality of the hay was superb. It was high in food value and saved me buying extra grain to maintain the production of the herd."

He points out, too, that the shed can be used for implement storage in the off season. V

J. Bull and D. McCaig look inside the hanging canvas hood to hot air duct.

Country Guide Associate Editor Richard Cobb examines the homemade wagons used in the process. Slatted bottom permits air to circulate freely.

Continued from page 19

RESEARCH FOR FARMERS

will have staffs of specialists which the regional directors will have authority to group and use in the manner which seems to them to provide the best chances of success. Most of the research will be of an applied nature—the direct application of known scientific knowledge to the solution of a problem—but in many cases research of a fundamental or basic character will be necessary and this will be done if staff and facilities are available.

A good research organization should also have staff engaged on problems that are national rather than regional in character and the solution of which requires fundamental or basic research. Without such provision the real sources of information on which applied research depends will eventually be exhausted and from then on progress will decline. For this purpose research institutes have been established in the Research Branch. Most of these will be at headquarters but at present there is one at London, Ont., for work on pesticides, another at Belleville, Ont., for biological control problems with insects, and a third at Sault Ste. Marie, Ont., concerned with diseases that attack insects.

A very important fact with respect to the new organization that is probably being overlooked is that research officers will, in practically all cases, continue with the work on which they are now engaged, the only difference anticipated at first being that their relations with others with whom they must work will be simplified and more logical. Any changes that come about in the future in the work of individual research officers will be the result of the normal operation of the Research Branch, as a whole, in its efforts to attain the right degree of emphasis on problems and the right balance between applied and basic research. Such changes would occur in any event, but in the old organization it was difficult to guarantee that the changes taking place in the two services were of corresponding import and directed toward common goals.

THE whole picture may be a little clearer if we attempt to follow the working of the new organization in handling a new farm problem. Let us suppose that a new virus disease threatens the production of a particular fruit crop in Ontario. Plant pathologists engaged in disease survey work will probably have had indications of the occurrence of the disease before it becomes a hazard to commercial production. The first report of the disease, however, might come from an individual farmer, from a provincial government agricultural representative, or from some other source. Any increase in the disease will be considered by the Research Branch as reason for a preliminary study of its

subsequent spread and resulting damage.

The groups in the Research Branch that will be concerned immediately with the problem will be the nearest research station and the board of advisers I have referred to as the Program Directorate. The most likely event is that the regional research station will submit to headquarters a project dealing with the study of the disease. Bear in mind that a project is nothing but a suggested piece of work. The Program Directorate will have in its membership specialists in plant diseases, insects injurious to crops, soils, crop sequence, engineering, chemistry, etc. Each will see this new disease with particular reference to his own field. For example, if an entomologist were not present it might not occur to other members of the Program Directorate that the disease might be spread by an insect and, therefore, that controlling the insect might provide the most practical solution to the problem. After all the facts have been obtained and studied, the Program Directorate will recommend a course of action.

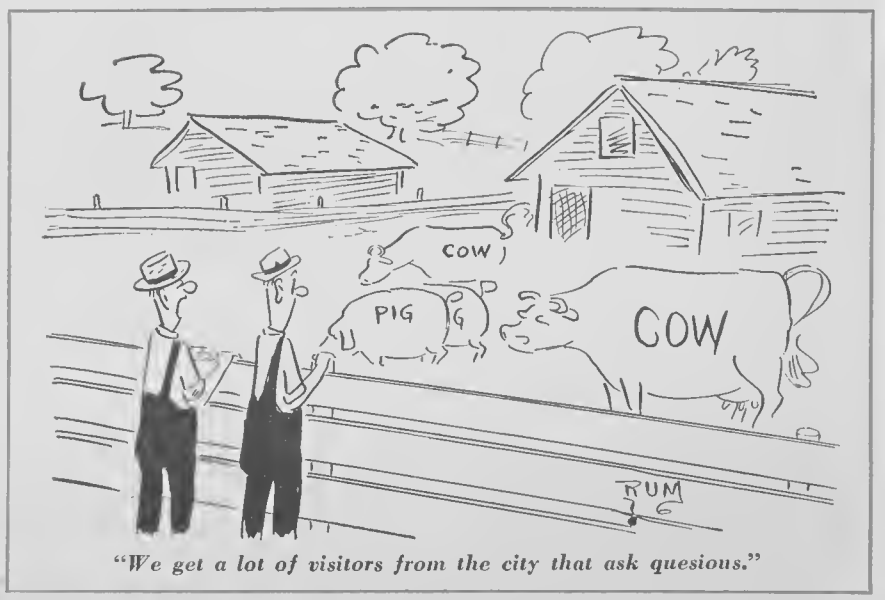
A project on control might be set up at the nearest regional research station and if facilities are available at this station it might take over the whole program. However, the assistance of other institutions might be required. For example, the physiology of the disease might be studied in the Plant Research Institute, or pesticide problems might be referred to the Pesticides Research Institute, etc. In any event, the various phases of the problem will be considered from the beginning and the proper emphasis given to ensure the quickest possible solution.

With the above problem in mind, I am sure that anyone can visualize how any other problem would be tackled by the total resources of the Research Branch. It is not to be inferred that some similar type of action would not have been taken by the combined efforts of the two services as they were previously organized, but in doing so there would be no end of frustrations and difficulties created by divisional autonomy, administrative barriers, lack of facility in moving personnel and equipment, and other hindrances that are too numerous to mention.

FINALLY, I wish to emphasize that the contacts of the Research Branch with farmers, farm organizations, industry, provincial governments, etc., have not been neglected. These contacts were maintained formerly through superintendents of experimental farms, officers in charge of laboratories, and through the chiefs of divisions. The first two groups will have exactly the same contacts as in the previous organization. The chiefs of divisions have disappeared but their places have been taken by members of the staff of the Program Directorate. In fact, this is where most of the former divisional chiefs are now located. In the future, they will not have the detail of a research program to direct as one of their primary functions, and it is to be expected that this will give them more opportunity for contacts of the type mentioned than they had in the previous organization.

One question that has been asked is the extent to which advice from others was sought in setting up the new organization. The late Dr. K. W. Neatby, who had been selected to head up the Research Branch, had been studying research organizations throughout the world during the 12 years in which he acted as director of Science Service. During the past 3 years he had made an intensive study of this problem and had consulted with research directors on every possible occasion. In the summer of 1957 Sir William Slater, Secretary of the Agricultural Research Council in the United Kingdom, made a tour of experimental farms and laboratories in Canada. On the conclusion of this tour, Sir William reported on the organization and commented on how it could be improved. His report contains references to many features that can be found in the new organization.

It should be emphasized that the opinion of Sir William Slater was given serious consideration in working out the details of the Research Branch for the obvious reason of his having a long and distinguished career in directing a research organization and in getting important research done. The same applies to other agriculturists that were consulted. We were not particularly interested at this stage in deciding on what work should be done or what problems should be emphasized. The job was to decide on the right kind of machinery for doing research. After this is accomplished, facilities will be available for consultation on a broad scale with agriculturists across the country with reference to the particular programs that will be most beneficial to the agricultural industry. V



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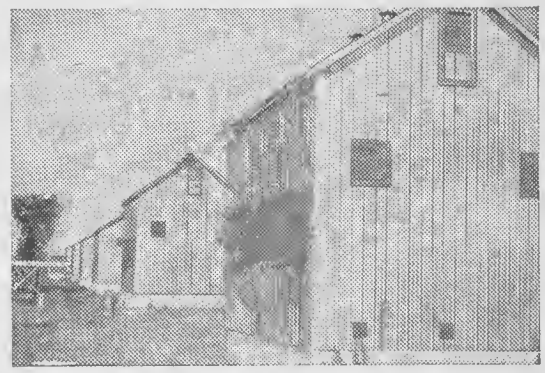

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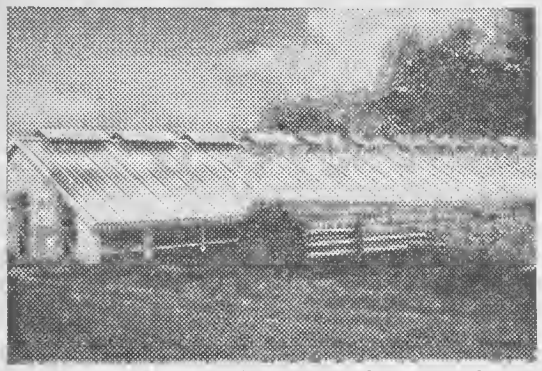

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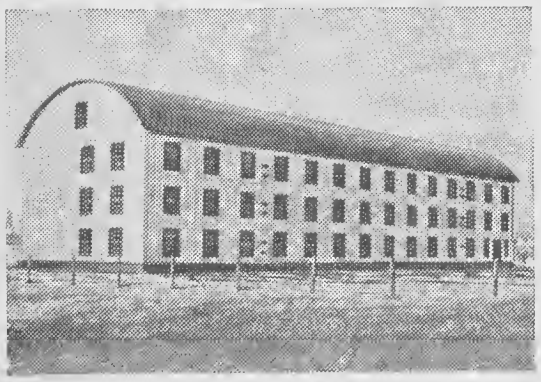

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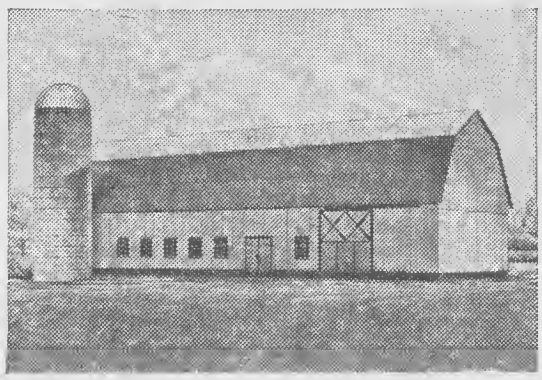

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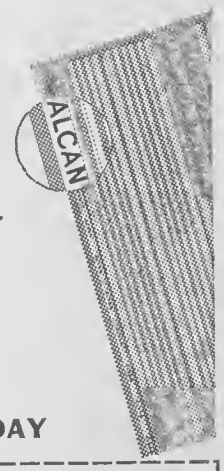

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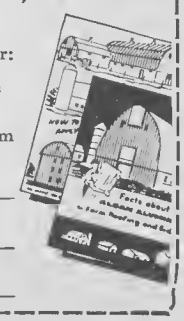

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Continued from page 17

CAN WE TAME THE WILD OAT?

cessive cultivation in hot weather often reduces the percentage moisture below the level for germination.

Learning how the dormancy of wild oat seeds works and how to break it is a very tough proposition, but it is not the only one. As has been mentioned already, small sections of rooted seedlings may become re-established and develop into normal plants. Tests showed that in a cultivated field, even under unfavorable conditions of moisture and temperature, plants injured by farm implements and covered with soil, or which had nearly all their roots destroyed, could re-establish themselves and grow again. Since only 0.5 per cent of the original plants on an unwatered area recovered after plowing down, while 25 per cent survived on a watered plot, it seems that the number of re-established plants is related to soil moisture conditions. It is logical to presume that regrowth in the field occurs most frequently following spring cultivation, when growing conditions are most favorable, and when wild oat seedlings are left partly covered, or otherwise favorably situated for re-rooting.

Cultural Control

WHILE there is no complete agreement on a sure method of wild oat control, there has been some success with the following methods: (1) delayed seeding; (2) fall seeded crops; (3) rotations that include grass and legumes; (4) seeding down to grass for varying periods; (5) intertilled crops; (6) green feed crops.

Delayed seeding, using an early maturing barley, is the best method of controlling wild oats. The percentage of control is further enhanced by supplementary methods such as fall tillage, light early-spring cultivation, post-seeding cultivation, and fertilization. Fall tillage needs to be 2 to 3 weeks after harvesting. Light early-spring cultivation helps to promote earlier germination. Post-seeding cultivation, preferably with a rod weeder and under conditions suited to this implement, gives the crop a chance to get ahead of the wild oats. Fertilizers are not advantageous by themselves, but in an overall program will give the crop an advantage over weeds.

Taken together, the above treatments are our best control measure, but the climate in any one year can determine the success or failure of the program. For example, fall tillage usually gives poor results in cool, moist weather, and cool, moist conditions throughout the growing season can make delayed seeding unsatisfactory.

Fall seeded crops have been helpful where it is possible to use them. Only a limited area in Western Canada is a good fall crop risk.

Rotations that include grass and legume mixtures have given adequate control under some conditions. However, for the most part, these rotations have not been an outstanding success unless carried on for a great many years.

Seeding down to grass for varying periods, on heavily infested areas, has given good control only in a few cases. Sod tends usually to preserve wild oat seeds up to 10 years.

Intertilled crops are not practical on the Prairies, even though thorough cultivation of such crops gives excellent results over wild oat seeds.

Green feed crops, cut before wild oats come into head, provide a method that is quite practical and efficient, except that its application is limited.

Chemical Control

The inevitable question is: why don't we have a chemical that can control wild oats, as with other weeds? The three Prairie universities and practically all the experimental farms in the region, co-operating with

"I don't know where you can buy one. I rigged this up myself to speed up the chores."

GUIDEPOSTS, page 8, helps you plan what to produce.

chemical companies, have been working toward this. These are the three main avenues of approach.

Pre-emergence treatments require a chemical that is selective enough to kill wild oats as they emerge, without harming the crop. Such chemicals have been found, but they are not selective for our common cereals.

Chemical sprays used on wild oats in the standing crop, without serious damage to the crop, but able to devitalize or impair developing wild oat seeds, are another approach. Maleic hydrazide sprayed at the correct stage of growth had no effect on the crop. Sprayed on wild oats at the early milk stage, the wild oat seeds either did not form or would not germinate. Unfortunately, under natural conditions, when the crop was in a stage where no harm could be done, the largest percentage of wild oats were in a similar stage and went unharmed. The critical timing needed for success just never materialized under natural field conditions.

Pre-seeding treatments include by far the largest number of chemicals. Three possible methods of attack are: (1) to destroy germinating seedlings of wild oats without persisting in the soil long enough to damage germinating seedlings of a crop seeded later, or selective enough to destroy wild oat seedlings without harm to crop seedlings; (2) to destroy the ability of wild oat seeds to germinate in the soil and not persist long enough to harm the crop seeded later; (3) to find a chemical to break the dormancy of wild oats, thus allowing them all to grow, when they can be destroyed by cultivation.

The work continues. Promising chemicals must prove themselves ultimately in the field, but this is both costly and time consuming. In future programs we intend to supplement field tests with relatively inexpensive laboratory tests, and hope to find a faster and more efficient screening process in this way.

Adequate control of wild oats is still lacking. Certainly, no one has come up with a method that can give consistently good results. However, there is hope that the basic studies being carried on at Saskatoon, Regina and Ottawa will find that chink in the wild oat's armor. V

Pneumonia And Shipping Fever

PNEUMONIA in calves and shipping fever in cattle are probably related. In research at the Ontario Veterinary College, it was observed that many of the animals most seriously affected by shipping fever had a chronic type of pneumonia prior to shipment.

So far, reports indicate that the disease, known as enzootic pneumonia, may affect 25 per cent of Ontario's calves. It doesn't cause heavy losses, but it may reduce growth rates and lower resistance to the point where calves are susceptible to other more serious diseases. It is similar in character to virus pneumonia in swine, which is widespread.

While research is continuing into the disease, you'll find that clean, dry and well-ventilated calf pens will do much to bring affected calves back to health. V

RANGER OF SUN DANCE

A serial in four parts

by JOHN PATRICK GILLESE

JODER, an experienced hand in the ways of the wild, becomes the forest ranger of Sun Dance Hills, and is soon involved in the affairs of a herd of elk, and of their particular enemy, a stock-killing grizzly named Crazyfoot. This old bear is quickly on the scene when a cow elk gives birth to a bull calf known as Hammerhorn. After a cunning ambush, Crazyfoot kills the mother, and but for the timely arrival of Joder, would have made Hammerhorn his next victim.

The gruff old ranger takes the orphaned Hammerhorn to his cabin, and then heads for the Currie ranch, where he hopes to borrow a baby bottle for feeding the calf. There he renews his acquaintance with Ken Currie, a boy with an endless curiosity about the life of a ranger and a determination to earn a $200 reward for killing Crazyfoot. Joder arranges for Ken to bring fresh milk each day until the calf can do without it. Then he heads for home on his old mare, with the baby bottle for Hammerhorn.

Part II

THE baby elk lay in the corner of the kitchen where Joder had left it. Its eyes were closed, but it was not sleeping. It still shivered constantly, sick for the mother who would never come.

Joder heated the milk, put the bottle on the edge of the kitchen table, drew up a chair and lifted the elk over his knees. Its little oaken hooves touched the floor.

The ranger pulled back the calf's head with one hand and tried to put the nipple in its mouth with the other. It rolled its terrified eyes.

"Just taste it," Joder begged. "This stuff'll put horns on your head."

The baby elk would stand watching Joder disappear up the hills.

The baby bull reared violently. Its head rammed Joder's face, making him yelp with pain.

"Cut it out!" Joder yelled. "Your head's as hard as a doggone sledge-hammer . . ." He broke off, the words suggesting what his baby's name would be.

His attempts to feed Hammerhorn, though, grew progressively worse. At last, sticky with spilled milk, Joder put the bull back in the corner.

"When you're hungry enough," he muttered aggrievedly, "you're bound to eat." But his misgivings were strong now.

Through the night, he tossed on his bunk, turning over ways of making the milk more tempting. In the morning, he tried sweetening it. But the calf was obstinate. By noon, the wilderness baby was noticeably weaker. In desperation, Joder poured the milk in the wash-basin and left it by the calf's head. Maybe if he cleared out for long enough, the calf would get over his fear, and feed.

He got two bear traps from the shed—No. 6's, with sixteen-inch steel jaws, each forty pounds in weight. He pried down the powerful springs with a crowbar, to set them. It required two trips to take them up to the hills.

Crazyfoot had not returned to his spoils. Joder scooped holes for the traps, covered them with sand and grass, then took a last look at the little black-faced cow.

"I'll try to raise him right, girl. But I sure wish I knew how you got him to eat."

KEN CURRIE, with a fresh supply of milk, was sitting before the cabin when he got back.

"Hunting Crazyfoot, Mr. Joder?"

"You don't hunt grizzlies." With a lot of worry and without his dinner, Joder was short. "Once in awhile, you bump into one. You might find 'em near dumps in the spring—before they go off to graze. You might be lucky around an old carcass. They're the smartest animals in the hills, long before they reach Crazyfoot's age. For him, I'm trying traps."

"I'd like to go up and see those elk he killed—"

"Keep away from there!" The hair rose on Joder's head. "You step on one of those bear traps and you can leave your leg behind as bait."

He went indoors.

The milk, yellow with a skin of top-cream, was untouched. Hammerhorn lay on his side—a bad sign. The little elk's life was ebbing fast.

Joder tried without hope to force milk through the stubborn lips. The baby bull resisted weakly.

"Mr. Joder"—Ken Currie wasn't sure his advice was welcome—"a range calf often won't suck another cow—because she doesn't smell right. You don't smell enough like his mother."

Joder threw him a dubious look. "That's a big help."

Day after day, Joder watched patiently, the rifle across his chest, but the grizzly didn't come.

Illustrated by **CLARENCE TILLENIUS**

But at supper time, the idea hit him. He could ride back to the thicket, cut strips of hide from the little cow's flank. Maybe—just maybe—everything would smell right then!

THE following afternoon, when Ken Currie stepped apprehensively up to the cabin door, he saw Hammerhorn wedged between Joder's knees. The little elk was standing on his own feet. His stub tail was flicking. And he was feeding – bunting and feeding with upturned head—from a baby bottle wrapped in rough elkhide.

"Gee, Mr. Joder! I'm glad!"

The face Joder turned was as unsocial as ever.

"Don't think it doesn't take care on a mother elk's part, too. Takes a lot of luck for any little elk calf to grow up to be a herd bull. And sometimes," Joder said, "a man destroys it all, without a thought."

"We have our troubles, too, Mr. Joder!" Currie stiffness was in Ken's voice. "I guess you don't know it, but it takes a lot of work to put up hay—"

"I wasn't riding you about the bull," Joder grunted. "That squares that shooting, kid." He indicated the bottle and the feeding Hammerhorn. "And some day, I got a notion, you'll be proud of this . . ."

A week later, Joder visited the bear sets. Nothing was disturbed. The Currie kid, as usual, volunteered the answers.

"Crazyfoot was shot once – in the neck. He nearly got the hunter that did it, too. Before that, about 30 years ago, the first ranger tried trapping him. All he got was a few toes. My dad says that's why they call him Crazyfoot."

Joder knew then no one would ever set a trap that would take the grizzly. He picked up his sets and, for another week, sat patiently in the bluff, the saddle gun across his chest. No Crazyfoot came to feed. Not for months would he return to where he had raised the danger-wrath of man.

IN those two weeks, the change in Hammerhorn was almost phenomenal.

He learned to like eggnogs in his milk—the eggs likewise bought from the Currie ranch. The taste acquired, he started nosing around the cabin, eating the eggs raw. Joder put them on a high shelf. The elk watched how he stood on a chair to reach them; then put his forefeet on the table, trying to do the same.

Borrowing the ranchers' technique, Joder promoted the calf to pail-feeding, using one finger, dipped in the bucket, as a substitute for the nipple. In short order, Hammerhorn insisted on licking Joder's hands, arms, and finally his face.

Ken Currie watched the performance in amazement.

"He thinks you're an elk—I guess, Mr. Joder!"

"Naw!" Joder tried to conceal his pride at the compliment. "He just likes the smell of me now."

He had a time getting Hammerhorn out into the sunshine; the elk didn't want to leave the cabin. Then, true to form, he became a pest, tripping on Joder's heels everywhere he went. Even at that age his speed was astonishing.

His appetite grew in ratio. Soon, Joder was feeding him armfuls of peavine and vetches, cut with the handscythe. When he sharpened the scythe on the old grindstone by the shed, Hammerhorn stood devotedly behind, licking Joder's neck in rhythm to the singing of the stone.

"You lick more'n a dog," Joder growled. "You're the lickingest thing I ever laid eyes on!"

For all that, elk-instinct remained strong. Hammerhorn understood by Joder's voice when he was not to follow. He would stand watching the man disappear up the hills, and when Joder returned he was still in the same spot. Obedience was strong, too; not till the man came up and spoke to him would he move.

Joder tried whistling to him when he returned to the cabin. After a time or two of indecision, Hammerhorn accepted the sharp "come-boy" call. A hundred yards from the cabin, Joder could whistle; and Hammerhorn would bound to him, licking his face and hands, even if the separation had only been for a couple of hours.

They made a game of it finally, for the calf was full of fun. Hammerhorn would wait obediently till the man had hidden himself almost out of hearing range. Joder would whistle; and minutes later, the elk would come bounding to his side.

Joder tried impossible hiding places —behind deadfalls . . . even ten feet up a tree . . . but he could not outsmart Hammerhorn. Inevitably the growing elk—velvet-green sprouts on his saucy little head—found him. He was better able than the man to take the long climbs now; and more and more, Joder let him follow about the hills.

The high heat of midsummer made the poplars limp the day Joder worked back to the thicket where Hammerhorn was born. Only the bones of the two cow elks were left, hidden by the bent-over hill grass.

As Joder gazed, there was a snort from behind him. In surprise, the ranger saw the hair standing stiff on the young bull's body. He hooked his head at the winds and stamped with his forefeet.

The bull identified places with memories. There was no taint of bear now, but Hammerhorn's babyhood terror had grown into a fire of hate.

A few days later, Joder saw a timberwolf with her half-grown whelps trotting down to the flats. Hammer-

"Well, now that I've got the job . . . when do I get a raise?"

horn saw them, too, and instinetively pressed eloser to the man's side.

"I suppose your mother would give a fear-smell to tell you about 'em," Joder said. "They're trouble, too. They eat elk your size bones and all!"

He snapped a shot at the big timberwolf, thinking the bull might understand from that. He missed; levered; and the old gun jammed.

"Ejeetor!" Joder eussed. "Gotta file the danged thing again . . ." He pried the empty shell out with his knife. "See how it is, boy?"

Only later did he remember that Hammerhorn had not panieked at the gunshot. He had jumped, like a saddle pony hearing a gun go off for the first time; then stared wonderingly at the man. Joder frowned.

"That kind of attitude eould sign your death-warrant, boy. You ean't stay with me forever. And when you go, these things are worse than wolves."

Thus it was that they elimbed one day to the upper ranges beyond Open Creek, where a herd of eows and young were sunning. The wild elk stared at the man and the bull, unable to eomprehend the strange eombination. Hammerhorn took a few uneertain steps in their direetion, tossed his head pertly, then bounded baek to the man's side.

"They're your kin," Joder said. "Not me. You belong with them, boy." Strange loneliness seeped into his being. "I ean't keep you forever—you know that. As it is, you've got too used to man . . ." He looked into the alert young eyes and spoke sternly. "Stay! You hear me now? Stay!"

Crossing Open Creek, he looked baek. Hammerhorn and the others were meeting in a semi-eirele, neeks extended warily, as they sniffed and snorted in introduetion. Hammerhorn had forgotten him already.

"It's better," Joder said. "Good-by, boy."

It seemed a long way home, longer than it had ever been. Joder almost wished the talkative Currie kid was around to ask questions.

He was nearing the eabin door when he heard the familiar snort, the tattoo of flying feet. Even as he turned, Hammerhorn reared up beside him, stub tail flieking madly.

"Didn't I learn you better than that?" Joder was overwhelmed. "Did I whistle for you to eome?"

The elk's tongue, like a pieee of purple-eolored belt, lieked his rough hands.

"Cut it out! You tiekle!" Joder growled, but for some reason he eould hardly see. "Well, okay, stay awhile longer . . . you're still a baby, I guess. Till fall, maybe . . ."

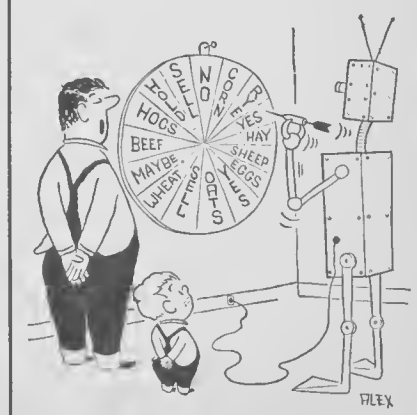
IT was hard to believe the eolors eould ehange so fast. The lower hills still held their late-summer hues, but the upper ranges were sprayed with bright gold the autumn morning he started up for Pawn's Peak.

Hammerhorn, bigger than a muledeer now, lagged behind, alternately pulling dwarf shrubs out by the roots and shaking away the sod; then, fascinated by the pressure of his itehing antlers, rubbing against some young poplar. The bull would groan, then baek up and hook savagely at the sapling.

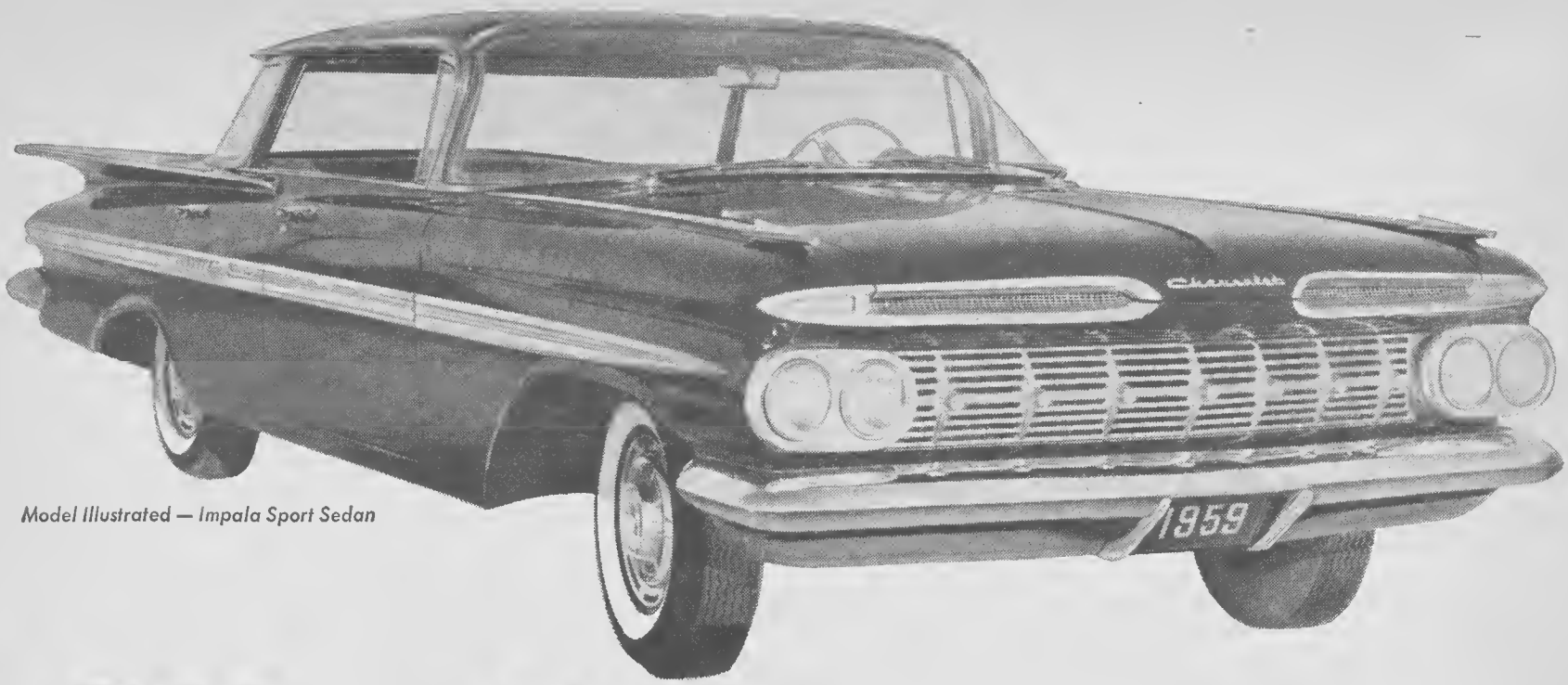
"Aet like an elk, instead of a doggoned billy-goat!" Joder growled.

To Hammerhorn, the man's voiee was magie. He forgot his rubbing and bounded up, wanting to play and be seratehed. Joder found it hard to believe he had onee been a helpless little wilderness baby.

In the past few weeks, he had started to wander far, tasting the different boughs to find the browse he wanted. Even so, Joder's whistle never failed to bring him gliding through the forest aisles, with a soundlessness that was sometimes



"Like I say, son. The farmer of today must make his decisions scientifically!"



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downright startling. But it was time all that was ended.

Beyond Open Creek, they found the first herds again. Mature bulls with six-point crowns had joined the cows now, rounding up their harems again. They barked and roared belligerently, almost indifferent even to man now that the mating time was near.

Excitement was mounting in young Hammerhorn, till at last, after one bugle-blast, he squealed shrilly and bounded toward the herding elk. He almost fell on his nose at Joder's sharp whistle.

"Not yet!" Somehow Joder had to grin at the anties of the little cuss. "I'm not handing you over to just anybody. I'm taking you to the wisest one in these hills."

It was evening when they gained the great upper meadow.

Elk, bedded down during the bright blaze of early afternoon, were everywhere. Bugling sounded from pine clumps and distant hillsides, the whistling squeals of young bulls challenging the bass trumpeting of the herd bosses.

Then suddenly, from an outcropping to the east of Pawn's Peak, a single bull stepped up, silhouetted against a few flaming poplars and the smoked September sky. Joder's spine tingled at the sight of him.

He was in full winter dress—the chestnut brown of his great maned neck contrasting with the killed-grass gray of his body. Long royal-points tipped a rack of antlers fully four feet across.

The bull slowly lifted his neck. Against the sudden stillness of the hills, Joder heard the majestic challenge begin: a low, hoarse roar, rising in unbroken melody to its great clear bugle pitch.

Hott-t-tott-tot-a — ta-ta! Tat-att-tat-ta-ta!

The wild music died in a throaty grunt. Even Hammerhorn was awed.

"Know him?" Joder touched the staring young elk. "That's the Old One. I think he's your daddy. Leastways, your mother belonged to his band. Stick close to him, boy. Learn from him. And no hunter will get you."

Joder's throat was dry.

"Mind your manners, too—I wouldn't want him thinking I didn't raise you right. This time, little Hammerhorn, good-by."

(to be continued)

THE Country GUIDE

Home and Family

[Miller Services photo

THIS is the time of year when winter snows yield slowly to the warming sun. Here and there the bare earth gives promise of fertility to come. Trees and shrubs faintly show the first small traces of the growth to be. Lengthening days slowly unfold their promise of the softening temperatures that herald spring.

This is Easter time, with its traditional meaning—a time to think of casting off the old, of putting on the new. Easter bids us come to church to rededieate ourselves to its inner meaning.

Easter and spring are inseparable. Both offer their message of the resurrecting power within all things. The stones of disbelief and unkindness can be rolled away, and replaced by faith and loving-kindness. Somehow both represent our refusal to give way to any thoughts of inadequaey and fear, frustration and bitterness. We know, with the poet

For while the tired waves, vainly breaking,
Seem here no painful ineh to gain,
Far baek, through creeks and inlets making,
Comes silent, flooding in, the main.

And not by eastern windows only,
When daylight eomes, eomes in the light;
In front the sun elimbs slow, how slowly!
But westward look, the land is bright!

In Easter's message of renewed life lies the brightness of the days ahead.

by ELVA FLETCHER

Spring Yields a Harvest of Gold

Hosts of daffodils grace Vancouver Island fields offering a harvest that is both pretty and profitable

by BARBARA FLETCHER

[B.C. Gov't. photo

Great patches of golden daffodils grace Vancouver Island's countryside.

THOUSANDS of worshippers across Canada will admire the bouquets of daffodils decorating their churches this Easter Sunday. Some will have the lovely golden blooms as centerpieces for Easter dinner tables; many will be given to mothers, wives and sweethearts; dozens will find their way into hospitals, rest homes and sanitariums; others will be taken reverently to the graves of loved ones. A few will be bought as a delicious extravagance.

Whatever corner they brighten, the bulk of these flowers will come from the fields of Vancouver Island and the lower Fraser Valley, shipped the length and breadth of Canada by air express.

The narcissus family, which includes the daffodil, the jonquil and the narcissus, with their endless variations, is a very old one. Although daffodils are as familiar to us as dandelions, their appearance in early spring is always a delight. Their crisp golden cups have a frosty, almost metallic look and they carry a fresh woodsy fragrance which is quite heady after a long, dreary winter.

The southern portion of Vancouver Island and the lower Fraser Valley are the main narcissus growing areas of Canada. In these two regions soil and climate are ideal for successful daffodil culture.

[Photo by Bob Taylor

To winter-bound Canadians daffodils bring their first breath of spring.

These regions receive an abundant supply of moisture and have the moderate temperatures so necessary during fall and winter months for proper bulb development.

Driving through the country roads of the Saanich peninsula, Gordon Head and Ten Mile Point areas of Vancouver Island, the sightseer is confronted with whole fields of daffodils, carpeting the rolling countryside with great patches of gold among the bright green of young grain or pasture. One might even think that a farmer who grew flowers had an easy and carefree time, with his harvest all in and sold before the warm weather arrives.

As with all commercial crops, however, daffodil culture is hard work and the Easter trade, while a lucrative one, has many hazards. No one can change the date on which Easter Sunday falls; no one can control the weather nor the speed with which the flowers grow and bloom. If Easter is unusually early and the winter weather cold, the bulk of the daffodils may not be ready in time.

Daffodils grow and flourish in many types of soil. Each grower has his own preference. Some favor a soil with sufficient clay to keep it from drying out too soon after the spring rains. Others find a light sandy soil, used with soil improvement methods of production more satisfactory. Lighter loams are actually easier to work for heavy or stony soils increase planting and harvesting costs that tend to reduce the efficiency of farm machinery.

While daffodils are adaptable as to soil, they produce best results when the ground is well and deeply tilled and where drainage is good. A fertilizer rich in nitrogen, applied in the fall just prior to or immediately following planting of the bulbs, is used by many growers.

Crop rotation has proved essential for quality of blooms, control of disease and purity of the strain. Usually the crop rotation plan is of 4 or 5 years' duration. It frequently includes 2 years when the daffodil bulbs are left down; 1 or more years of strawberries, vegetables or some other cash crop; and, 1 year of green manure.

An acre of land will grow from 87,000 to 100,000 bulbs depending, of course, on size and variety, and on the method of planting.

Planting is begun in August and sometimes continues into October. The fields must be cultivated and "rogued" several times during the growing season.

While daffodils are quite hardy they are subject to some diseases and pests. When diseases such as mosaic, gray mold or basal rot strikes, or insect pests like eelworms or narcissus fly invade the fields, infected bulbs require special treatment and equipment. Two or three times during the season, examinations are carried out to uncover foreign varieties, diseases and pests. If any are discovered, the whole plant is removed from the field.

WHEN the flowers stand almost ready to open but with the perianth segments still touching at the tips, the grower knows the time for cutting has arrived. Women harvesters and packers move into the fields to cut blooms which, in a few short hours, will be on sale in Edmonton, Prince Albert, Winnipeg, Toronto or any one of the dozens of towns and villages that dot the country.

Daffodils are usually cut or broken with the fingers as close to the ground as possible to provide the long stems so much in demand. They are cut in the cool of the morning and given a 12-hour drink before shipping. As they are cut, they are placed in buckets containing a few inches of water and wait in a sheltered spot until vans deliver them to the packing sheds. While awaiting shipment the flowers are held at a temperature of 36°. Cutting lasts only 10 days to 2 weeks for a single variety, but weather conditions may speed up or delay both the start and the duration of the harvest.

The King Alfred variety is far and away the most popular for flower cutting and shipping but Golden Spur, Emperor, Victoria and Cheerfulness are also shipped in large quantities.

Air cargo service came into being in March of 1948, and, since that time, the tonnage of field bloom moved by this method has steadily increased. In 1952 the total reached 52 tons.

THE shipping container is a long narrow cardboard box lined with green florist's tissue. Flowers are tied with elastic bands into bunches of 1 dozen. A cushion under the heads prevents them from being crushed, while a wooden cleat holds the stems firm. Cartons contain from 25 to 45 dozen daffodils depending on individual preference and the stage of development of the flowers.

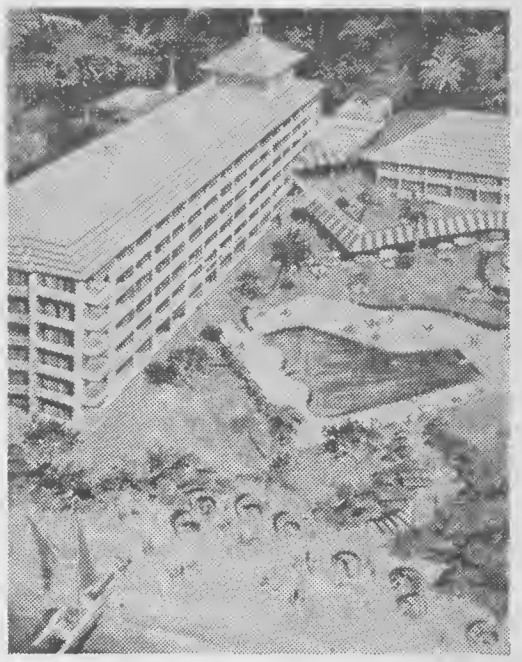
Last spring Easter Sunday fell on April 6 but Vancouver Island enjoyed one of the mildest winters in many years, and some warmth resulted in some varieties passing their peak before Easter. This year Easter is even earlier, the winter even harsher. In a good year some 800,000 dozen flowers with a value of $250,000 are shipped by Island daffodil growers.

Many years ago the beautiful Greek youth Narcissus stood admiring his reflection in a quiet stream. He stood there so long he lost his balance and fell into the water. Mythology has it that he took root there and so the first narcissus came into being.

Today, huge airliners wing their way across the land loaded with thousands of narcissus, speeding them from the gentle fields on which they grew to other parts of the country still enduring winter. All over Canada, Vancouver Island daffodils will help worship at Easter, cheer the sick, say thank you and speak of love. V

WIN a holiday for two in NASSAU

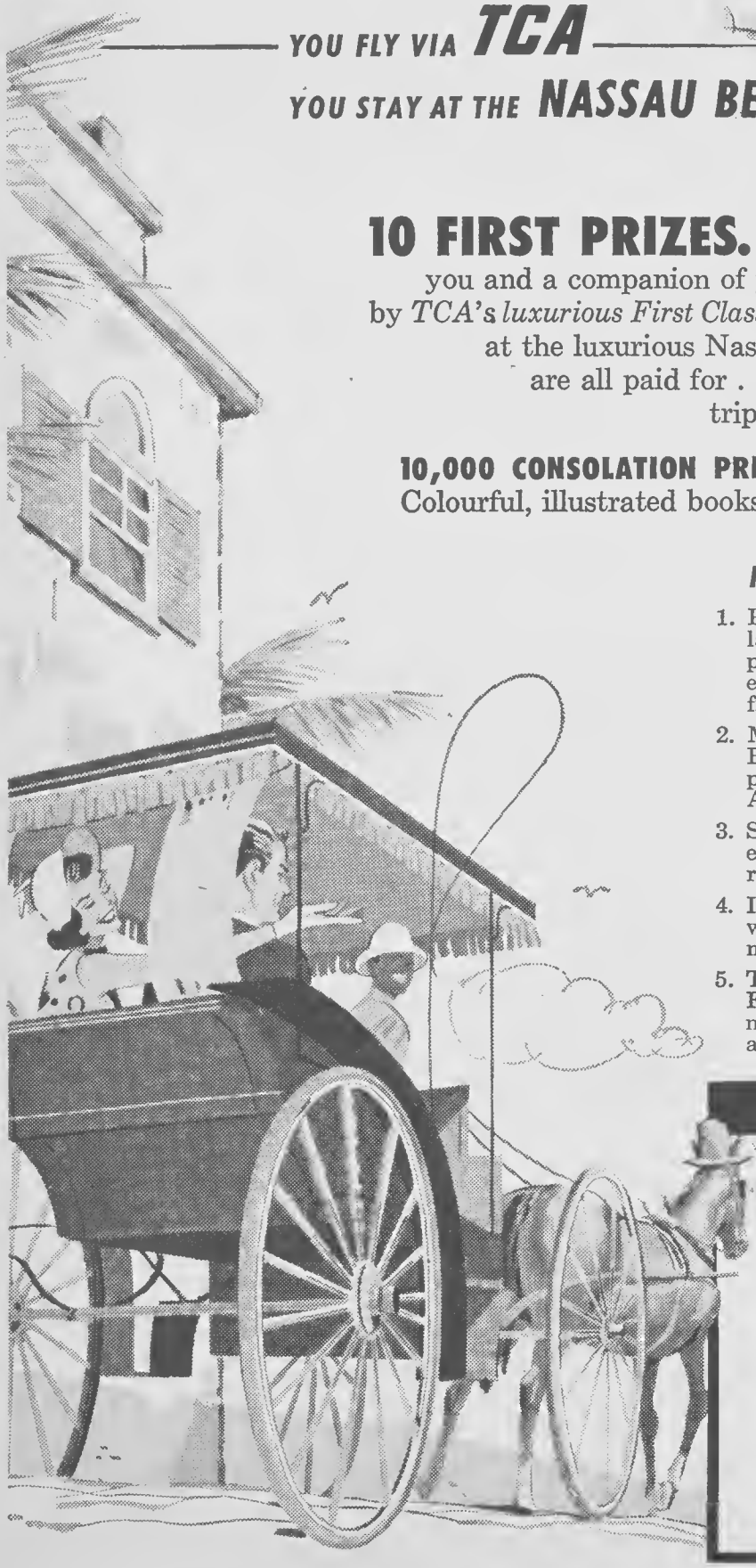
enter the Robin Hood Flour Contest



Nassau Beach Lodge, Nassau, Bahamas.

YOU FLY VIA **TCA**

YOU STAY AT THE **NASSAU BEACH LODGE**



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2. Mail the completed entry blank to: Robin Hood Flour Contest, P.O. Box 1551, Dept. C-G, Toronto, Ont. All entries must have sufficient postage to qualify and must be postmarked not later than midnight, April 30th, 1959.
3. Send in as many entries as you wish, but remember to enclose with each entry the guarantee certificate from a bag of Robin Hood Flour, or a reasonable facsimile.
4. In case of a tie, a tie-breaking question will be asked contestants. If winner is unable to make the trip, flight tickets and accommodation may be transferred to any person of his or her choice.
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NAME.....
(please print)
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FOR BEST RESULTS — USE
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[N.F.B. photos

Canada's National Housing Act offers financial assistance to the farm family which is giving serious thought to building a new modern home.

If You Need a New House

Consider an NHA Loan

by GEORGE HUNT

WHERE will the money come from? This question is quite likely to greet the farm wife who asks her husband for a new house. She, in turn, can remind him that loans for farm house construction are available under the National Housing Act if cash or other assets are in short supply. The Act is administered by the Central Mortgage and Housing Corporation, a Federal Government agency.

This Act defines a farm as land used for any tillage of the soil, including livestock raising, dairying and fruit growing. The size of the farm is not defined. It provides for farm house loans to any one whose principal income comes from farming, if the farm income is sufficient to justify the loan.

Generally, mortgage loans made under NHA to help finance new house construction for home owners are obtained from such approved lenders as banks, life insurance companies and trust and loan companies. To make sure that the Act's lending facilities are available in all communities, however, the Central Mortgage and Housing Corporation is also authorized to make loans, where these cannot be arranged through the regular lending agencies.

If financial assistance is not available through an approved lender in the community, applications may be made directly to the nearest local office of the Central Mortgage and Housing Corporation. Before applying to CMHC, however, the applicant must obtain a letter of refusal from an approved lender showing that he has tried to arrange the mortgage loan through the usual channels.

As with all other housing loans made under NHA, farm house loans must be secured by a first mortgage. There is a limit to the amount of money that can be borrowed. It may be $10,000 or two-thirds of the appraised value of the farm, whichever is less.

If you decide to borrow for your farm home under NHA, there must first be an appraisal made by the Central Mortgage and Housing Corporation. It will determine the value of your land, exclusive of buildings, and add to that figure the appraised increase in value attributed to existing buildings and the proposed new house.

Since the NHA loan must be secured by a first mortgage, the proceeds of the loan may be used in part to discharge existing encumbrances on the farm. However, the loan is intended primarily to assist in meeting the construction costs. It must be used largely for this purpose, rather than the consolidation of existing obligations.

Because farm income is usually seasonal, NHA farm house loans may be repaid in annual, semi-annual or quarterly payments of principal and interest instead of the monthly payments required for houses financed under NHA in urban areas. The term of repayment may be up to 30 years and the maximum interest rate is 6 per cent per annum, calculated semi-annually and not in advance.

The repayment of principal and interest per $1,000 of loan at 6 per cent interest for a 25-year loan is approximately $78.90 annually, $38.87 semi-annually, $19.29 quarterly and $6.40 monthly. For a 30-year loan, the approximate repayments are $73.35 annually, $36.13 semi-annually, $17.93 quarterly and $5.95 monthly.

In urban areas NHA borrowers are required to pay one-twelfth of the annual taxes on the property with each monthly instalment on the loan. When received, tax bills are forwarded to the lender for payment on behalf of the home owner. However, the seasonal aspect of farm income is also recognized in respect to payment of taxes and arrangements may be made for the farm owner to submit his receipted tax bills to the lender.

Normally, the total amount required annually for payment of principal, interest and taxes should not exceed 27 per cent of the borrower's net annual income. This is a guide to the farm owner to help him establish the amount of money he can reasonably afford to borrow.

THE basic requirements for assistance under the National Housing Act are: Sufficient annual income to pay the taxes and regular principal and interest instalments on the mortgage loans; and ability to provide the difference between the loan and the total cost of construction.

When progress advance loans are made direct by CMHC, advances during construction are calculated on the basis of the materials and work in place. However, 25 per cent of each amount is withheld until the expiration of the lien period prescribed by provincial laws concerning the

Farm home loans arranged through NHA may be used, in part, to pay existing obligations on the farm.

mechanics' lien. For this reason, the borrower is asked to produce a letter from his contractor saying he is aware there will be a holdback on each loan advance. Alternatively, evidence may be offered that cash on hand is sufficient to carry construction until the holdback is released, or that arrangements have been made with suppliers of materials for delayed payment of accounts.

To protect the investment of the lender, NHA loans are insured with the insurance fee payable by the borrower. The fee is 2 per cent of the amount of loan if advances are made during construction; 1¾ per cent if the loan is made on completion of construction. This fee is added to the mortgage debt.

There are a number of points the farm owner should bear in mind when he and his wife are considering application for a mortgage loan under the National Housing Act.

First of all, the application should be submitted before construction has started; it cannot be approved if the work has proceeded beyond the bare excavation stage. The farm owner needs to have working drawings of the proposed house, and an estimate of the cost of construction. He should also be prepared to furnish all necessary information regarding current assets and annual income. And it must be remembered that where existing encumbrances on a farm have priority over the NHA mortgage, they must be settled from the proceeds of the loan or out of other assets. At least four advances may be made on the loan, but the lender endeavors to retain sufficient funds at all times to insure reasonable completion of the house.

Once the initial proposal is approved, a formal application, together with the application fee, is then required. The following information is required in the application:

1. Complete details of the site on which the building is to be constructed, including a survey and a legal description of the land, if possible.
2. Plans and specifications for the proposed farm home. (A convenient specification form to be completed by the applicant and his contractor is provided.)
3. A breakdown of the overall cost of construction and proposed method of financing.

When the application is approved the farm owner is advised of the amount of the loan and the terms of repayment. At the same time, the approved lender or CMHC advises its solicitor to search the title and, if satisfactory, to prepare and register the mortgage. Construction must be started within 90 days of official approval.

Whether the loan is obtained from an approved lender or CMHC, certain fees and approved charges are met by the borrower. There are the expenses of a surveyor's certificate and a solicitor's services, in addition to an application fee of $35. The surveyor's certificate is required to show the location of the house on the building site. The solicitor, on behalf of the lender, prepares and registers the mortgage deed, searches the title to the land and attends to advances on the loan.

If the house is to be built under contract, the farm owner should engage his own solicitor to prepare the building contract and other agreements with the builder.

During construction, CMHC building inspectors carry out periodic inspections to ensure that plans and specifications and the prescribed building standards are being followed. When a loan is approved the borrower receives seven "Request For Inspection" postcards. As completion of each stage of construction listed on the postcards draws near, a card is mailed to the local CMHC office giving notice of the date on which that stage of construction can be inspected. These inspections are intended to give some measure of protection to the borrower. Arrangements with the contractor and enforcement of the contract are, however, the sole responsibility of the borrower.

For the farm wife who has convinced her husband they really need a new home, there are a number of useful publications, available without charge from the nearest office of Central Mortgage and Housing Corporation. These include the book "Small House Designs," a catalog of houses designed by Canadian architects for which working drawings may be purchased from CMHC at $10 per set, and the book "Choosing a House Design" which provides information on the many problems of home-ownership.

She also knows that under NHA, a farmer may:

- Arrange a loan up to $10,000 for new farm home construction.
- Take up to 30 years to repay the loan, with interest of 6 per cent per annum, calculated semi-annually, and not in advance.
- Repay his loan in annual, semi-annual, quarterly or monthly instalments of principal and interest.
- Apply to any of the lending agencies authorized to make NHA loans.
- Apply direct to the Central Mortgage and Housing Corporation for his loan where it is not available from authorized lenders.
- Receive the loan as building proceeds or in a lump sum when construction is completed.

(Mr. Hunt is Chief Information Officer for the Central Mortgage and Housing Corporation, Ottawa.—Ed.)∨

Provisions of the Saskatchewan Farm Security Act preclude the making of farm house loans in that province. This is an Act "for the protection of certain mortgagors, purchasers and lessees of farm land."

This situation does not arise in Saskatchewan urban areas since loans in these areas are protected from provisions of the Farm Security Act by the Housing Act, Chapter 246 of the revised statutes of Saskatchewan, as amended by the Statutes of Saskatchewan, Chapter 63, Section 12, in 1954.

Vacation Time Is Cookie Time

by **GWEN LESLIE**

EASTER vacation for school-age children this year will be a chilly, wet, between - season time in many parts of Canada. Indoor activity will fill a number of holiday hours.

Hours spent in the kitchen learning what happens before the bowl can be licked can be rewarding for both you and the children. Theirs will be the pride of achievement and new skills; yours the fun of doing things with them (although it will take more time than to do it yourself), and in time you'll reap the benefit of kitchen assistance. For your own sake as well as the youngsters', you'll find a few minutes getting ready of value. Free your mind and time from conflicting demands, as far as possible.

The boys in your family, as well as the girls, will profit from a degree of kitchen competence, a fact being recognized in school home economics programs. The foods boys choose to prepare may be different from those of the girls, but basic training will be the same. Early habits are retained, so start your junior chefs off right.

MAKE the first step a check of the cook: hands freshly washed and dried; sleeves anchored at out-of-bowl level; hair neatly combed and controlled; outfit protected by a clean apron.

Next, place the recipe where it's easily read but not in the way. This is a good time to read through it before assembling the ingredients listed. It's even more important for the young cook to be able to work straight ahead once started, without the stops frustrating to new and experienced cooks alike. You'll want to help gather the necessary utensils—a good time to mention the importance of accurate measuring. Now the pan can be prepared and the oven temperature set if the oven is to be used.

As you progress from very simple foods to more complicated ones, your young cook will learn how tables of equivalent measures apply to what's being measured. If your favorite cookbook doesn't list facts such as 1 tablespoon being equal to 3 teaspoons, it may help to write these on a permanent list as they are needed. Be sure the recipe is detailed and clearly worded—the beginner doesn't have your years of experience. By doing such things as "blending," "beating," and "folding" under your watchful eye, these terms will soon be familiar.

Cookies will prove a popular project and one that even pre-schoolers can participate in by helping to roll the dough for cutting, by doing the cutting, or by flattening small balls of dough, if this is needed. Even if you're alone in the kitchen through the Easter vacation there is bound to be a run on the cookie supply.

Sugar Cookies

- *1 c. butter*
- *1 c. sugar*
- *2 eggs, well beaten*
- *2½ c. sifted all-purpose flour*
- *1 tsp. baking soda*
- *2 tsp. cream of tartar*
- *Pinch of salt*
- *1 tsp. vanilla*

Cream butter, add sugar and cream thoroughly. Beat in beaten eggs and flavoring. Sift remaining ingredients together and add gradually to first mixture.

Taking a small amount of dough at a time, roll thin. Cut with cookie cutter and sprinkle with granulated sugar. Bake on a lightly greased cookie sheet at 350°F (moderate oven) about 8 to 10 minutes. Yield depends on size of cutter used.

Peanut Butter Cookies

- *½ c. butter or shortening*
- *½ c. peanut butter*
- *½ c. sugar*
- *½ c. brown sugar*
- *1 egg, beaten*
- *1 tsp. baking soda*
- *1¼ c. sifted all-purpose flour*
- *Pinch of salt*

Cream butter and sugars. Add egg and beat well. Blend in peanut butter. Sift together flour, baking soda and salt and add gradually to first mixture. Mix well after each addition.

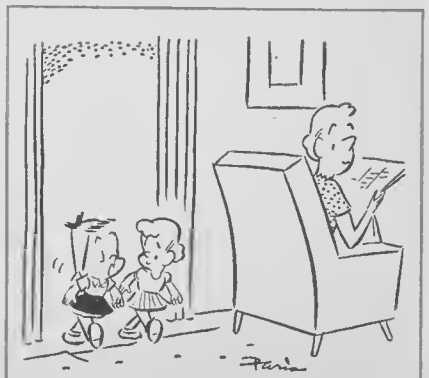
Roll dough in small balls, place 2" apart on a lightly greased cookie sheet. Press balls down with a table fork dipped in flour. Bake at 350°F (moderate oven) about 10 minutes.

Glazed Chocolate Cookies

- *1½ c. sifted all-purpose flour*
- *¼ tsp. baking soda*
- *¼ tsp. salt*
- *½ c. butter or shortening*
- *1 c. sugar*
- *1 egg, unbeaten*
- *2 squares bitter chocolate, melted*
- *½ c. sour milk or buttermilk*
- *1 tsp. vanilla*
- *1 c. chopped nuts*

Sift flour once, then measure. Sift again with baking soda and salt and set aside. Cream butter and sugar until light. Add egg and beat well. Stir in melted chocolate. Add sour milk and vanilla, then blend in sifted dry ingredients and nuts. Drop from teaspoon in mounds on ungreased baking sheet. Bake at 350°F (moderate oven) for 12 to 15 minutes. Cool cookies, then spread with chocolate glaze. Makes about 3 dozen cookies.

Chocolate Glaze: Melt 2 T. butter, and 2 squares bitter chocolate in top of



"We broke our engagement and I gave him back his turtle."

double boiler. Combine 3 T. hot milk, 1 c. sifted icing sugar and a dash of salt. Add melted chocolate and butter and stir to blend.

Sugar Topped Ginger Cookies

- ¾ *c. shortening*
- 1 *c. sugar*
- 1 *egg*
- 4 *T. cooking molasses*
- 2 *c. sifted all-purpose flour*
- 1 *tsp. salt*
- 2 *tsp. baking powder*
- 2 *tsp. baking soda*
- 1 *tsp. cinnamon*
- 1 *tsp. cloves*
- 1 *tsp. ginger*

Cream sugar and shortening, add egg and blend. Stir in molasses. Sift remaining ingredients together and add to first mixture. Roll dough in small balls and toss balls in granulated sugar. Space balls 2" apart on lightly greased baking sheet. Do not press down, cookies will flatten out in baking. Bake at 350°F (moderate oven) for 10 to 12 minutes. Makes about 4 dozen.

One-Bowl Chip Cookies

- 1¼ *c. sifted pastry flour or*
- 1 *c. sifted all-purpose flour*
- ½ *tsp. baking soda*
- ½ *tsp. salt*
- ½ *c. sugar*
- ¼ *c. brown sugar, firmly packed*
- 1 *egg*
- ½ *c. shortening (room temperature)*
- 1 *tsp. vanilla*
- ½ *c. chopped nuts*
- 1 *pkg. semi-sweet chocolate chips*

Sift measured flour, baking soda and salt together into mixing bowl. Add granulated sugar and brown sugar, egg, shortening and vanilla. Stir to blend, then beat well for 1 minute. Stir in chopped nuts and chocolate chips. Drop from teaspoon on ungreased cookie sheet about 2" apart. Bake at 350°F (moderate oven) for 10 to 12 minutes. Makes about 4 dozen cookies.

Coconut Crisps

- 1 *c. butter*
- 1½ *c. brown sugar*
- 1 *egg, well beaten*
- 1 *tsp. vanilla*
- 1½ *c. sifted all-purpose flour*
- 1¼ *c. rolled oats*
- 1 *c. coconut (fine)*
- ¼ *tsp. salt*
- ¼ *tsp. baking soda*
- 2 *tsp. baking powder*

Cream butter. Add sugar, then beaten egg. Beat well. Sift together flour, salt, baking soda and baking powder and gradually blend into first mixture. Stir in rolled oats and coconut. Mix dough well.

Form dough into small balls the size of marbles and place 2" apart on an ungreased cookie sheet. Flatten balls with the tines of a table fork dipped in flour. Bake at 350°F (moderate oven) for 10 to 12 minutes.

Cocoa Gems

- ½ *lb. butter*
- 2 *c. sugar*
- ½ *c. milk*
- ½ *c. cocoa*
- 2½ *to* 3 *c. quick-cooking rolled oats*
- 2 *c. fine coconut*

Combine butter, sugar, milk and cocoa in a large saucepan and bring to a boil. Remove from heat and add rolled oats and coconut. Drop by teaspoonful on a cookie sheet or tray lined with waxed paper. Chill in the refrigerator for 1 hour. Makes about 6 dozen. V

* * *

Key to Abbreviations

tsp.—teaspoon	**oz.—ounce**
T.—tablespoon	**lb.—pound**
c.—cup	**pt.—pint**
pkg.—package	**qt.—quart**

Carol's Sugar Cookies

by **MARGARET M. HANSON**

One day Carol said to Mommie,
"Please, may I learn to cook?"
And Mommie said, "Of course you may,"
And reached down the cooking book.

"What would you like to cook, dear?
There's cakes and all the rest,"
But Carol said, "Just cookies, please,
'Cause I like those the best.

"Some of those nice big white ones,
With sugar on top like snow,
That look like clowns and stars,
And elephants and things—you know."

So Mommie sat her upon a stool
And brought a spoon and bowl,
And all the things to mix inside,
With a rolling pin to roll.

First, half a cup of shortening
And one of sugar Carol mixed,
Till they were soft and creamy,
Just like Mommie always fixed.

Then she dropped in an egg
And beat it hard and steady,
After which she set aside the bowl
Till the other things were ready.

Three cups of flour, a pinch of salt,
Three teaspoons of leavening she lifted
Into Mommie's big round sifter,
And together these she sifted.

Half a spoon of flavor she mixed
With half a cup of milk, just so;
Then the cup, the sifter and the bowl
She placed neatly in a row.

First, some of the milk into the bowl,
Then some of the flour—such fun!
First one, then the other she put,
Mixing all till she was done.

Now onto Mommie's breadboard
She put the dough, and then
She floured it and rolled it out
With Mommie's rolling pin.

And now, what fun! She cut them out
To make a star, a clown, a man,
And sprinkled them with sugar
And placed them in a pan.

Mommie popped them in the oven
To start them off to bake
And when they were done, Mommie said
They were better than she could make!

Little Carol had so much fun,
For she really loves to cook!
So now she tries and tries again
From Mommie's cooking book!

[Bomac photo

Easter Food Parade

THE menu is less set by tradition at Easter-time than for most other festivals. For some people Easter is marked with a special yeast bread, for others by the decoration of eggs with intricate and extravagantly colorful designs.

Ham and lamb are the two meats favored for Easter dinner. Since both are served throughout the year on less important occasions, imaginative extras are in order. It may be a glaze, a tangy sauce or a decorative garnish.

For the Ham

Glazes may be sharp or sweet. Here are some suggestions:

- 1 cup brown sugar, 2 tsp. dry mustard, 3 T. flour and 3 T. vinegar.
- Red currant or tart apple jelly mixed with a little dry mustard or prepared horseradish.
- 1 c. honey or ½ c. orange marmalade.
- Juice drained from spiced fruit used as platter garnish.

Twenty minutes before baking time is up, remove ham from oven, score fat in diamond shapes and stud with whole cloves. Smooth on the glaze of your choice and return ham to oven at increased temperature of 425°F for 15 minutes or until golden brown.

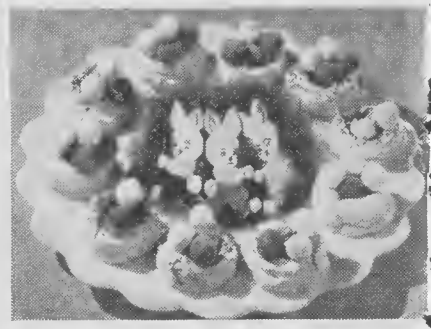
For Lamb

Lamb may be glazed with its popular accompaniment, mint jelly. Blend ¼ c. mint jelly with ¼ tsp. dry mustard and 1 T. vinegar. Spread over meat for last half-hour roasting and baste several times.

A minted fruit sauce may be served separately. To make it, combine 1 c. crushed pineapple or pureed applesauce with ¼ c. lemon juice, 1 T. mint sauce and a few drops of green food coloring.

For Dessert

Capitalize on the whimsical myth of egg-bearing bunnies by serving Easter Petites, a special-day dessert that's sure to please every age group.



[American Dairy Assoc. photo

Easter Petites

6 *egg whites*
⅛ *tsp. salt*
1 *c. grated semi-sweet chocolate*
2 *c. sugar*
Chocolate and vanilla ice cream

Beat egg whites and salt until frothy. Add sugar 1 T. at a time, beating until meringue is very stiff and holds a peak. Fold in chocolate, a small amount at a time. Cover a cookie sheet with brown paper and use a spoon or pastry tube to shape small meringues. Bake at 250°F (warm oven) for 1 hour. Remove from cookie sheet when cool.

Prepare ice cream balls ahead of time. Scoop chocolate and vanilla ice cream with a melon ball scoop or make small balls by twirling a small round spoon. Keep in refrigerator tray until hard and ready to serve. To serve, put several scoops of each in meringue shells. Top with chocolate sauce if desired.

Multi-colored Nests: Omit chocolate and fold 2 T. multi-colored decorettes into the meringue mixture. Use strawberry and vanilla ice cream and top with sweetened sliced strawberries, if desired. V

It Can Happen At Your House

by **LORRIE McLAUGHLIN**

[Manitoba Government photo

The familiar laundry hamper can be a step toward danger for youngsters.

JUST how careful are you with your child's life? Most of us go to great lengths to warn Johnny or Jane about crossing the road at the corner, watching for cars, riding their bicycles carefully and keeping away from known danger spots, then calmly expose them to injury, illness and even death in their own home.

If you make a mental check list of your house this very minute, you'll quite likely come up with at least half a dozen danger spots, because many of the most commonly used household materials can be poisonous.

The most obvious potential danger spot, of course, is the family medicine chest, even though most parents make a point of keeping such things as sleeping pills, sedatives, and pills containing codeine or other strong drugs well out of the reach of children. Even so, nearly every medicine chest contains at least one item that is potentially dangerous. It may be an inviting-looking (to a small child) bottle of red or green liniment, chocolate-coated pills, mint-flavored headache cures or used razor blades. Unless your medicine chest can be equipped with a child-proof catch, you'll find it is safer to store your medicines in a less easily reached spot.

THE kitchen runs the bathroom a close second as a danger zone. We've all learned to turn pot handles away from the edge of the stove, so that small, exploring fingers cannot accidentally tip the pot, and to keep the spout of the teakettle turned toward the wall so that no one runs the risk of steam burn, but there are less obvious dangers.

The cupboards under the sink, where you keep your cleaning supplies, contain an almost endless quantity of materials that can poison your child. Almost all the detergents, waxes and polishes we take for granted contain ingredients which can result in varying degrees of illness if taken internally.

Even adults are not immune to painful injuries from everyday household aids. A friend of mine accidentally upset a bottle of household bleach, some of which splashed into her eyes. Only her presence of mind in rushing to wash out her eyes with water spared her days of pain and possible loss of sight. Even so, she required medical treatment and underwent some frantic minutes of worry.

The safety council gives a long list of materials found in any home which are dangerous if taken internally. If any of these are within reach of small children in your family, you owe it to yourself to find a safer storage spot.

Besides the detergents, waxes and polishes already mentioned, such things as the following can cause poisoning: window and glass cleaners, spot removers, lighter fluid, insect repellents, mothballs, matches, ink, drain cleaners, paints, paint remover, turpentine, shoe dye, weed killers, nail polish and remover, perfume and deodorants.

SMALL children don't stop to question the contents of a jar or tin. If the colors are bright, the smell pretty, their first impulse is to pour some out, to feel it, or taste it. Often, children get their hands into some liquid, unknown to mother, then seconds later put their hands into their mouths.

We often expose our children to needless risks outside the home, too, all with the best intentions.

Most families find it necessary to pass clothing from one member of the family to another, even though the garments do not fit the second child quite as well as the original owner. Youngsters in oversize snowsuits look cute, especially with furry parka hoods half covering their faces—but they do not have proper visibility and are more apt to unknowingly walk into the path of an oncoming car. In the same way, coats a little too long are apt to cause small feet to trip. Even if your children are going to be in their own backyard — where nobody can see them—you owe it to them, for safety reasons, to see that their clothes fit properly.

When your children reach school age, see that each child has a light colored raincoat and try to avoid blacks, browns and navies, which are difficult to see on overcast days.

With potential troublemakers safely out of the reach of the children, you'll be able to leave them to play alone while you attend to your household tasks. You'll find it's just as easy to have "safety zones" as "danger zones." V

IN THE SERVICE OF AGRICULTURE

THE EXTENSION SPECIALIST

is among other things, the spokesman for agricultural research. Whether he's describing a new variety of grain, a new insecticide, or a new farm implement, he knows that a new idea must be tested in the field to help the Canadian farmer keep pace with modern methods. That's where fieldmen, research workers, agricultural representatives and other extension specialists fit into the picture of modern farming.

OUR LOCAL MANAGER

is another specialist who plays an important part in agriculture. Farmers everywhere are realizing the importance of good business methods in farm management. Your manager can show you how your farm can benefit from efficient use of the complete banking service we offer. If you need extra money to improve your farm, he'll gladly discuss with you the possibility of a Farm Improvement Loan.

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FN-129

Raising Tomatoes

by **DORIS FELSTAD**

TOMATOES can be a main vegetable in our northern gardens if handled in the right way. They can be as versatile as the apples in the song of "Johnny Appleseed." Tomatoes have many uses: canned, in soups, stews, relishes, jams, pie fillings, pickles, and many more.

Living 70 miles north of Edmonton, I have had a good crop of tomatoes for the past 18 years regardless of weather conditions, good or bad growing seasons, with the exception of the year the river flooded, drowning all the garden. I have followed the same procedure each year always with good results.

Any of the early self-pruning varieties, such as Bounty, Bison, Beefsteak and early Chathams do well by this method. I plant the seeds on March 20, after treating them with semesan or a similar chemical to prevent damping off. Good garden soil is screened and put in cans, in which the tomato seeds are planted one quarter of an inch apart, using a tooth pick as a guide. They are then covered with a fine layer of screened soil. I cut a circle of cloth to fit the tin. This is laid on the top of the soil and the watering is done through it. It keeps the topsoil from drying out, and keeps the seeds from being washed away in the watering process.

The cans are then put in a warm place in the kitchen, perhaps a shelf near the kitchen stove. By the fourth day the little seedlings are pushing through. The cloth cover is removed and the cans are put in a sunny south window. They are watered a little each day, but not kept wet.

On warm days in April, I put them outside in a sheltered spot in the sun for a few hours in the middle of the day. This helps to strengthen them, but care must be taken that they do not get chilled.

The tomato plants are usually ready for transplanting by the last week in April. I gather garden soil, well-rotted manure and sand, and mix these well together. The individual cans are filled with this soil, and one tomato is transplanted to each can.

The stem, up to the first leaves, is covered with topsoil. They are then well watered and left in a cool place, out of the sun, but in the light, for several days. When they are well rooted and growing again they are ready for a cold frame outside.

The cold frame I use is a wooden structure, 24 inches high, and insulated on the inside with corrugated cardboard. The cans of tomatoes are put in this and the top is closely covered with storm windows. On warm days the windows can be taken off, always remembering to put them on again for the night to give protection from possible frost. On cold, windy, or rainy days, the windows should be left on, and the plants get the light, but are not subjected to the cold. The whole process, from start to finish, is to protect the delicate plants from any chill and still give them plenty of sunshine and outdoor air. One good chill will set their growth back a week.

We often have frost the first week in June, so the plants are not set out in the garden until after this time. I dig a deep hole for each plant, and put in half a shovel of well-rotted manure and one tablespoon of commercial fertilizer. This is chopped with a hoe and mixed with the garden soil. The tomato plants in the cans are soaked before hand, and then I slide a knife around the inside of the can and slip the entire block of soil out intact. It is then carefully placed in the prepared hole and the soil packed around it. A good watering finishes the job. The roots are not disturbed, and there are no setbacks from this planting.

Most of the tomato plants have their first blossoms by the time they are put in the garden and usually have a good cluster of green tomatoes by the end of June.

The first week in August gives us ripe tomatoes and they are all picked before the first frost in September. Then they are kept in boxes in a warm place, until they have ripened, and I have them nearly all canned by October. V

Choose Your Chores

LIKE most homes, there's a lot of work to keeping our premises livable, useful and pretty. But it's easy for our family now that we've adopted the potluck chores idea.

We had to do something. When we would assign a job to Jim he thought it was more disagreeable or harder than the one given to Louise. Sometimes it was Louise who wailed: "Jim's job is easier!"

"I'll tell you what," my husband said one day. "Let's write down what chores have to be done on slips of paper and drop the slips in a box."

I was enthusiastic. "Sunday after service we'll take turns drawing slips out of the box and whatever we draw will be our extra weekly chores."

We gave Dad's plan a try. As we thought of special chores we wrote them down. "Pull weeds in vegetable garden." "Gather wood for outdoor fireplace." "Rake off remainder of mulch on flower bed." "Paint fence posts."

On Sundays we gathered around and drew our slips. No one objected. No one felt that the other had been favored. The children began going about their chores cheerfully and with much healthier attitudes than they'd ever had before.

The chore potluck box continues to be our method of dividing tasks. And not just hard work, but for all work.

Of course at drawing times everyone always asks the others "What did you get?" But there has never been any thought of not accepting what was drawn. When you accept potluck you take what you get.

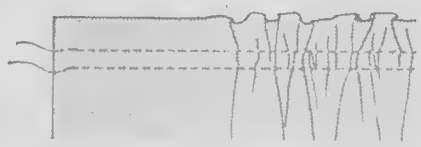
Now we urge other families with many chores to try the potluck box. It makes for better and happier family relationships and does get the work done!—Evelyn Witter. V

Always make sure your mail is properly addressed, and that you have signed your name and address to your letter or subscription order. An omission will cause delay in filling your order.

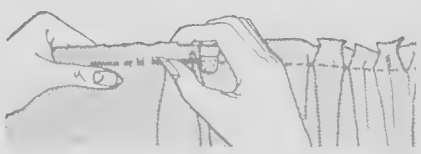
Clip and Save Sewing Hints

Gathering

Gathering is one of the most effective means for adding fullness. Several rows of gathers used decoratively is called shirring. Gathering at the waistline, in some designs, eliminates darts and adds a flatteringly feminine fashion detail. Two gathering techniques are outlined below.



A. To gather by machine, lengthen the stitch. Take the first row of stitching on the seam line, another row ⅛" outside the seam allowance where it will not show on the finished garment. Remove the fabric from the machine, fasten the threads at one end and draw up the under threads to form gathers.



B. To gather by hand, knot the thread and draw it up from the wrong side. Make running stitches, keeping the needle in the fabric. Push fabric off the needle as it becomes full.

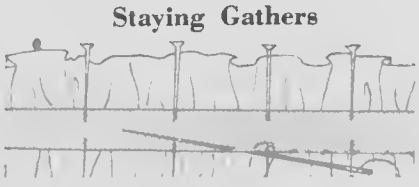
Spacing Gathers

Divide section to be gathered into quarters. Make a row of gathering on the seam line and the second row ⅛" above. Also divide into quarters the section to which the gathered piece will be joined. Pin the two sections together, matching your markings and placing the pins at right angles to the stitching. Pull the gathering threads and wind them around pins to adjust gathers evenly in each space.

Gauging

When a large amount of fabric is to be gathered into a small space, use the following method. Take a long stitch on the right side and a short stitch on the underside. Space the stitches on each row directly in line with the stitches on the row above.

Staying Gathers



Cut a piece of fabric the required size and shape. Turn under raw edges and hem against the gathers on the wrong side. This will prevent gathering threads from breaking under the strain.

Slumber Comfort

No. 8647—Pullover top with chest pocket adapts sleeve length to climate and preference. Pant length is also optional. Men's sizes: Small (34"-36" chest), Medium (38"-40" chest), Large (42"-44" chest). Price 35 cents.

No. 8239—Toddlers' lingerie pattern packet also includes a wide-skirted petticoat, frilled half-slip and frivolous panties trimmed with dainty lace. Sizes ½, 1, 2, 3. Price 35 cents.

No. 8652—Buttonless pajama top may be long or short-sleeved. The pattern also offers a choice of Bermuda-length pants or longs, both with boxer waist. Boys' sizes 2-14. Price 35 cents.

No. 8251—This nightwear collection offers styles for any season, simply sweet or frilled and gathered in feminine fashion. Girls' sizes 7, 8, 10, 12, 14. Price 35 cents.

The Country Guide Pattern Department

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Potpourri for Homemakers

by **ELVA FLETCHER**

Fun for the Family

An evening in front of the television sereen often brings forth a wondering about family fun. For you who are in reaeh of television, do you ever wonder just what you did for entertainment before the television era?

In those days families were known to spend entire evenings together, entertaining themselves. Sometimes they joined other families for their pleasure.

How long has it been since you as a family tried puzzles, peneil games, handierafts, or even manufaetured games like monopoly? It can be fun to deal out a few hands of a card game that everyone ean play. You might find this a good way to be together with the youngsters who are so often only home for meals. The western movie is still no substitute for a game that will test your skill and knowledge however simple the game might be.

It is an easy thing to slip into a steady diet of TV fare. Much of it is good but there is a danger of overindulging oneself as a speetator of this medium. If you are alert for ideas for family pleasure, you ean do much to eliminate the plea of "what ean I do?" Having fun together is another way to cement a happy family relationship.

Education Week

Some time ago Dr. H. W. McClusky said that "the attitude of parents toward the value and importanee of sehooling is a erucial factor. Moreover, the home can be a powerful ageney, eo-working with the school, in terms of providing an atmosphere of good books, good music, and the like. Children from such homes have a terrifie advantage in school."

This is the thought we'd like to leave with you following Canada's Edueation Week, March 1 to 7.

Education is not learning for learning's sake; rather it is learning "to train the mind to think, to reason, to explore and above all to eontinue to educate itself." At a time when Canada's growth can only be as great as the imagination and spirit of all her people, edueation beeomes increasingly important. Both you and your eommunities stand to benefit from your support of loeal edueation programs.

Looking Ahead

Countrywomen from many parts of the world will "look ahead" at the fortheoming eonferenee of their organization, the Asseiated Countrywomen of the World. Delegates and visitors to the ninth triennial eonference of ACWW meet in Edinburgh, Scotland, August 3 to 15.

Women from 30 countries will attend this gathering, among them Mrs. Hugh Summers, Fonthill, Ont., ACWW vice-president; Dr. Nancy Adams, Ethelton, Sask., ACWW area vice-president; Mrs. Keith Rand, Port Williams, N.S., president of the Federated Women's Institutes; and Mrs. E. J. Roylanee, Greenwood, B.C., FWIC viee-president, an alternate.

To be a part of an ACWW eonference is an inspiring experience. Here is an effort by rural women to bring their countries together through their common denominator—the home and family. They hope, by working together, and talking about their problems, to gain a deeper appreciation of one another. They are looking for the way to a better world — through a broader understanding of the many eultures represented in their association.

Treasure Chest

From a reeent newsletter about reading profitably, we learn that the average reader ean read an average book at the rate of 300 words a minute. This means 4,500 words in a quarter of an hour. On this basis, 1,642,500 words a year by spending just 15 minutes a day, one eould read 20 average-length books between January 1 and Deeember 31.

These few statisties may prove a stimulus to the observance of Canadian Library Week, April 12 to 18.

If you are busy making exeuses for not reading, and most of us are prone to do just this, you may be interested in what Robert R. Updegraff says in his most reeent book:

"In spite of our protestations that we are 'too busy' to do any serious reading, we might as well honestly admit that it is . . . either because we do not organize our time to fit in reading, or that we do not utilize our odd hours."

Armed with statistics on the results of 15 minutes' reading each day; touehed by Mr. Updegraff's gentle rebuke; and remembering the books which have already brought knowledge, inspiration and pleasure; there seems no reasonable exeuse for our failure to enter the wonderful world of books. It is as near to us as our library shelves. V

"My husband can never remember when my birthday is, so I usually manage to have a couple of them every year."

The Country Boy and Girl

The Lost Doodle-Do

by EVELYN WITTER

STRUTTER, the big, white rooster, was very proud of himself because he had the finest crow on Windy Hill Farm. His life was completely happy. It might have stayed that way too, if the manager from the television station hadn't come to the farm.

On that day Strutter ambled over to the chicken yard. Easily scaling the fence, he dropped down among the biddies, never dreaming that his life was about to change.

The television man was in the yard with Farmer Plower and they were talking. What Strutter heard made his gizzard do a couple of flip-flops.

The TV man was saying: "What I want is a fine rooster with a loud voice for commercials for a new cookie account we have."

"I have several fine roosters," Farmer Plower said. "Come back tomorrow. I'll have them all penned up and then you can audition them."

"Fine!" exclaimed the TV man. "I'll be back."

Now Strutter had reason to practice. If the TV man chose him, he'd be the most famous rooster in Canada!

He stopped eating immediately. He wanted his throat to be free for the biggest crows he had ever given.

Gracefully he made for the cow barn where he was sure of a big audience. The cows were already stanchioned.

Strutter posed himself on the box stall rail, and gave out with: "Cock-a!" But try as he would no "doodle-do" came out to finish the crow.

Strutter tried again: "Cock-a . . ." The doodle-do was gone.

The cows looked up, their brown eyes wide with wonder.

"Where's your doodle-do?" asked Swiss Belle, the smartest cow.

"I must have lost it!" Strutter answered in a choked voice. "Have any of you cows seen my doodle-do?"

"Noo," the herd mooed.

Strutter then half walked, half flew to the pig lot.

"Any of you fellows seen my doodle-do?" he asked from the safety of the hog house roof.

"No - oint," answered the hogs, scarcely taking their snouts out of the self-feeder.

Strutter was getting frantic. He spent the day looking for his lost doodle-do. He went through the orchard, the timber . . . but it was nowhere to be found.

When the sun came up in the pink-purple of the eastern sky he tried his usual warming-up exercises. "Cock-a . . ." he crowed. But the missing doodle-do nipped off his crowing right at the best part.

"Whatever will I do at the audition?" he wondered. "Well, maybe half a crow, if it is good . . ."

Strutter was worried, but he prepared himself for the audition anyway. He bathed carefully in the box of wood ashes and spread his wings so the wind could comb his feathers.

Try-out time came at last. Strutter gave a flying jump to the nearest fence post, and with all the gusto he could manage, he let out an extra loud, "Cock-a . . ."

He knew the cameras were running, and sound machines were spinning, so he kept auditioning along with every other rooster in the chicken yard.

Finally he heard the TV man say to Farmer Plower: "You'll be able to see this shot this afternoon. Be sure to watch it!"

"There's still a chance," Strutter told himself. But how could he ever know? He HAD to see TV this afternoon.

Then he remembered the TV set in the living room in the house. He could see it from the flag pole! So up he flew to the top of the flag pole.

After a little while a picture came on that almost caused him to lose his balance. There was a beautiful, big, white rooster giving a flying jump to the top of a post. He stretched his neck and then, through the open window, Strutter heard: "Cock-a . . ."

He could hardly believe his eyes and his ears. He was that rooster on the television screen!

The announcer was saying: "Wonder where the doodle-do is, boys and girls? It's at your nearest grocery store. Buy those chicken-shaped Doodle-do cookies today!"

Strutter knew now where his doodle-do was. The TV man must have picked it up the very first day he visited Windy Hill Farm, and the audition was to find the rooster to fit the doodle-do!

Strutter gave out a big "Cock-a . . ." from the flag pole. Now he was not only the most famous rooster in all of Canada, but he was the happiest one too!

Twisters

All the answers rhyme with the word "Call." Answers are on page 79.

1. *I'm little, or big, but always round,*
   You toss me, or bounce me on the ground.
2. *I'm high, I'm up, I'm in the air,*
   I reach the sky, I'm way up there!
3. *I cover Grandma when she's cold,*
   I cover baby until he's old.
4. *I'm a storm at sea, I'm wind and rain,*
   I bring snow and sleet and often pain.
5. *I house a horse, or cow, or goats,*
   I'm warm with hay and salt and oats.

—VIRGINIA D. RANDALL.

Color Story

(To be colored with paints or crayons. Whenever you come to a word spelled in CAPITAL letters use that color.)

"Oh my, what a wind!" shouts BROWN-haired Teddy as his DARK BLUE sailor cap flies off his head. It has a RED star on the top and BLACK ribbon streamer-tails. Teddy has his RED sweater over his DARK BLUE sailor suit. He carries his RED history book under his arm. His socks are YELLOW and his shoes are BROWN with YELLOW soles.

"Wheew!" cries YELLOW - haired Susie May—holding her tam on with both RED gloved hands—"My RED feather feels as if the wind will take it right off my GREEN tam!" Her scarf is GREEN with RED fringed ends. She wears a BROWN coat and RED leggings and BLACK shoes.

"Oh me, oh my!" laughs BLACK-haired Polly. "The wind wants my cap too!" Polly wears a PURPLE and YELLOW cap and scarf to match it. Her coat is GRAY (use BLACK lightly). Her coat buttons are YELLOW and her gloves are YELLOW with GREEN bands.

The sky is BLUE with long white clouds across it. All the BROWN trees and the tender new GREEN grass bend before the big March wind. The children have PINK (use RED lightly) cheeks and noses and their lips are RED. The ground is light BROWN.

Square-cut collar, pocket flaps and full sleeves, neatly cuffed, combine in the simply elegant styling of this knitted jacket. Instructions are written for ladies' sizes 14, 16, 18 and 20.

HANDICRAFT

Designs In Double Knitting

THIS month we are pleased to offer the booklet "Designs in Double Knitting," courtesy of Patons & Baldwins Limited. We've pictured just 12 of the 21 sweaters featured in the booklet.

As well as a wide selection of cardigans and pullovers in plain knitting and textured patterns suitable for sports, school and dress-up occasions, there are two full pages of charted motifs from which to design your own sweater. Designs include bunnies for the youngest, a horse's head for equine enthusiasts, a sputnik for the junior spaceman, a poodle for the fashion-conscious miss, a rose for mother and sporting scenes for dad. There is a heart motif for the romantics and patterns for all the letters of the alphabet.

This booklet may be ordered from The Country Guide Handicraft Department, 1760 Ellice Ave., Winnipeg 12, Man. The price is 50 cents. V

A colorful knit-in pattern highlights the king-of-the-castle's V-neck pullover. Knitting instructions for this and the plain knit classic at right are the same and may be used for boys or girls, with or without sleeves. The cardigan at left with cable trim and textured surface may also be adapted for boys. Instructions for these sweaters are given in sizes 2, 4 and 6.

There is a hint of the sailor look in the large collar featured in the double-breasted girl's cardigan at left. The raglan-style sweater at right may be knit for girls or boys, with collar or plain neckband omitting patterned border, if desired. Instructions are given for knitting sweaters in sizes 8, 10 and 12.

Sweaters pictured above illustrate some of the ways in which designs charted in the knitting booklet may be used with instructions for plain knit sweaters. Create original effects to match the interests of every family member.

Toast to the Queen

VERY often an organization will have occasion to propose a toast to the Queen. Just as often, there is indecision as to proper procedure when paying this tribute. The following is the correct way to give the toast, being issued recently by the Comptroller of the Lord High Chamberlain's Office, St. James Palace, London, England.

"The chairman of the meeting raps once with his gavel, and having obtained silence says: 'Ladies and Gentlemen. The Queen.'

"The audience stands at attention while the National Anthem is being played or sung.

"Only then is the glass lifted from the table and held for a moment at eye level.

"Either before or after drinking one sip of the liquid the words *'The Queen'* are repeated, and the glass is replaced on the table.

"The audience will then sit down."

Glasses are never clinked! Another bit of etiquette to observe: Guests must not smoke before this toast is made.—R.G. V

Young People

On the farm and at home

What Do You Think?

WHAT is self-discipline and what effect does it have on our lives? This was the question asked 4-H club members in New Brunswick by C. F. Harding, director of the New Brunswick Horticultural Branch. He suggested that teen-agers, soon to become adults, must accept the responsibilities and social disciplines of their new situation, among them an awareness of personal self-discipline.

He reminded 4-H'ers of Lord Beaverbrook's words: "In the turmoil of today, man can only keep his judgment intact, his nerves sound and his mind secure by the process of self-discipline."

This kind of control, he pointed out, keeps us from anger; from striking a person who annoys us; and from walking out on 4-H meetings when things don't go as we wish.

It makes us go to 4-H meetings on time even when they conflict with a favorite TV program or hockey game; prods us to carry a club project to its conclusion; and compels us to have an exhibit properly prepared for achievement day and to do our very best in displaying it.

Mr. Harding believes that regardless of the choice of career, whether that choice takes teen-agers to university or to college, puts them to work in hospitals or social services, or in positions in or near their homes, young people who exhibit self-discipline are those who will apply themselves and succeed in their chosen work.

What do you think? V

Fashion Fun

THERE is fun, and many hearty laughs, in playing the game of fashion modeling. It's good for either small or large groups and is recommended for posture improvement!

This is how you play it: Each player is given the same cardboard box (a 9″ x 12″ size will do). Each takes a turn at being a fashion model. An extra box of the same size will be needed for step 9.

Each model must go through identical maneuvers. Two points are given for each successful attempt to be the perfect model.

Models are instructed to place the box upon the head. If it falls during a modeling assignment, no points are awarded.

1. Walk slowly across the room.
2. Sit in a straight-backed chair.
3. Sit in a deep lounge chair or sofa.
4. Turn three times to the left and three times to the right.
5. Curtsy.
6. Walk three steps and then extend left leg as in a kick. Walk three steps and extend right leg as in a kick.
7. Walk up and down stairs.
8. Standing, recite a poem with gestures.
9. Join hands with a partner and side step together the length of the room.

We think a perfect score of 18 warrants a prize. V

Proud Harvest

NO royal fanfare greeted the six Alberta wheat kings honored recently at a 4-H club banquet in Drumheller. They did receive plaudits from some 220 guests who gathered for the occasion. Honored were:

Eleanor Leonhardt, Drumheller; and Mrs. Viola Adie and Rickey Sharpe, both of Munson. Eleanor was reserve champion in 1957; Mrs. Adie won the same honor in 1956; Rickey was world wheat king in 1950 and reserve champion in 1952. All three are members of the Drumheller wheat club.

Ronald Leonhardt, Drumheller, now leader of the Drumheller wheat club, chosen world wheat champion at Toronto in 1952 and 1953, reserve champion in 1954 and 1955.

Howard Roppel, Rockyford, world wheat king in 1951, reserve champion in 1950. Howard has since graduated with the degree of Bachelor of Science in Agriculture.

Gail Adams, Munson, another member of the Drumheller wheat club, was the world wheat "king" of 1958. V

These champion 4-H wheat growers of Alberta are (l. to r.): Ronald Leonhardt, Drumheller; Howard Roppel, Rockyford; Gail Adams, Munson; Eleanor Leonhardt, Drumheller; Mrs. Viola Adie and Ricky Sharpe, both of Munson.

WHAT'S HAPPENING

(*Continued from page 7*)

The high quality reputation of Canadian malts has been attained by blending malt of several varieties. Consequently, the release states, a start will now be made to introduce Parkland to these blends. Therefore, while Parkland has been added to the list of acceptable varieties, it is emphasized that good quality Montcalm and Olli will be required to form a large proportion of the 1959-60 purchases of malting barley. V

MORE LACOMBE HOGS AVAILABLE

The Canada Department of Agriculture has announced that about 100 Lacombe boars and 30 breeding groups, consisting of 1 boar and 3 gilts, will be available to Canadian breeders in April of this year. As in 1957 and again last year, a chance draw will decide which commercial swine producers get the boars. Application forms and details of regulations concerning draws may be obtained by writing to the Experimental Farm, Lacombe, Alta. Deadline for applications is April 11. V

LEASE STORM FAILS TO DEVELOP

The expected storm over the Alberta government's plan to create two or three community pastures at the expense of four of the province's largest private ranches failed to develop at the 63rd annual meeting of the Western Stock Growers' Association, held recently at Medicine Hat. As successful ranching in the short-grass country is based on economic ranch units with summer and winter ranges, many ranchers feared this move as the start of a new leasing policy which might cripple Southern Alberta's multi-million dollar ranching industry. But these fears were apparently allayed when Lands and Forests Minister Norman Willmore explained that, in this case, no change in the leasing act is intended.

"It has not been the policy in the past, nor is it intended to be the policy in the future, to disturb or cancel any grazing lease being operated by a bona fide rancher for his own use and benefit," said the minister. "In other words, the government intends to abide by the grazing lease contract."

In the cases of the four ranches mentioned, however, these are now holding more land than the leasing act permits (no one ranch may hold more lease than is required to carry 1,000 head of cattle, except at the discretion of the minister), and it is this land which the government is now considering for community pastures, because of a big increase in demand for grazing land by grain farmers and small livestock men.

Under the proposed plan, 33,900 acres of grazing lease now held by Lost River Ranches, Alberta's biggest ranch, would be assigned to the Nemiscan Grazing Association — a group of farmers located 60 miles to the west. Some 15,000 acres would also be taken from the Milk River Cattle Company to serve Masinisan farmers (20 miles west), and 20,000 acres from the Bar N Bar for small holders in the Aden area. The only ranch receiving other acreage to compensate for this loss would be Lost River Ranches, which would be given about 11,500 acres.

The Minister went on to explain, however, that it has been suggested to him that the 1,000-head lease maximum is too high, and it is now proposed to reduce this to 600 head. This new legislation won't affect leases now in operation, but will affect those which are assigned or renewed. It is also proposed, that, when renewing a lease, the term of the new lease should expire at the time the lessee reaches 65 years of age. Any lease issued to him after this age should have a maximum term of 5 years. As far as lease assignments are concerned, no change is contemplated in the case where a father assigns his lease to a son who desires to continue ranching. But where a lessee has no direct heirs, the case would have to be reviewed by the government. V

ANTI-BRUCELLOSIS PROGRAM ANNOUNCEMENTS

Technicians are to be allowed to collect blood samples in order to speed up the national brucellosis eradication program to meet the urgent needs of the livestock industry. The announcement was made by the Veterinary Director General, Dr. K. W. Wells. It will be the first time technicians have been used by the Health of Animals Division for this type of work. They will be trained by veterinarians, approved by the Canada Department of Agriculture, and will be under direct supervision at all times.

Seven new areas were declared brucellosis certified in February. They are Grenville, Halton and Stormont counties in Ontario; Annapolis and Lunenburg counties in Nova Scotia; Argenteuil county in Quebec; and Vancouver Island. This brings to 28 the number of areas certified across the country, involving about 550,000 cattle. Another 268 areas have been accepted and testing is being carried out in 49 of them. V

Twisters Answers

(*Continued from page 76*)

1. Ball, 2. Tall, 3. Shawl, 4. Squall, 5. Stall.

What Farm Organizations Are Doing

(*Continued from page* 10)

aim at the preservation of widely distributed private ownership of productive assets, enabling men to maintain themselves and their families on their farms, or whether the federal government intends to let those economic forces have free play that encourage the trend to anonymous, corporate ownership with all its inherent dangers."

It isn't lack of efficiency in farming that is at the root of the problem, IFUC said. "Productivity per man has increased more in agriculture than in industry in recent years."

The brief suggested that the need for more efficiency is not so much in the production of food as in its distribution. "At present there exists the absurd situation of food surpluses on one hand which apparently cannot be given away, while on the other hand more than half a million Canadians are unemployed and living at a subsistence level, unable to provide their families with sufficient food."

The primary cause of the problem is one of prices farmers receive and prices they have to pay, the brief said. "The Canadian farmer sells what he produces in an open market, but has to buy what he needs in a protected market." Protective tariffs have added considerably to his cost of production by raising prices of imported goods as well as those manufactured in Canada. Canada's industry has grown strong under the protection of these tariffs, largely at the expense of the farming community. Farmers feel entitled to "receive back at least part of the funds extracted from agriculture for the purpose of building up Canadian industry and keeping urban people employed."

The brief said that farmers were encouraged by the intention of the government, declared in the preamble of the Agricultural Stabilization Act, to assist farmers in realizing fair returns on their labor and investment and "a fair share of the national income." It pointed out that last year's per capita farm income increase of $45 "does little to raise the 1957 per capita net farm income of $383 to the $1,280 national per capita average of personal disposal income recorded in that year."

The IFUC has come to the conclusion that production payments or other forms of direct income supplementation should be used in combination with price supports. "These payments should be limited to a basic volume of each farmer's production, the calculation of which would be based on the requirements of the domestic market." The brief states that there can be no defense of large public payments to individuals or corporations.

It expressed the hope to be consulted on crop insurance plans, and also on farm credit legislation for which it also presented a supplementary brief. It asked that farmers be "sustained and encouraged" in their efforts to direct the supply of the domestic market through their own marketing boards and co-operatives, and supported the request of the Co-operative Union of Canada for enactment of a Dominion Co-operative Act.

The IFUC asked that export subsidies to flour mills, now paid by the farmers and ranging up to over 24 cents per 100 pounds of flour, be borne by the federal treasury as is the case in the United States.

The brief urged that the Senate step up its efforts in the study of land use as some means should be found to designate land to its proper use. It suggested that measures be taken to reduce costs by lowering prices of manufactured goods, and that no further freight rate increases be permitted until the announced study of the freight rate structure has been conducted.

Among other measures recommended were: continuation of cash advances on farm-stored grain; support of the prime minister's proposal that the NATO powers set up a food bank; an amendment to the basic herd regulations; marketing of rye and flax by the Canadian Wheat Board; more mental health research; more research in livestock diseases; and recognition of and increased trade with mainland China. V

DEFICIENCY PAYMENTS TO BEAT INTEGRATION

The Ontario Farmers' Union, in a brief presented to Premier Leslie Frost and his Cabinet, solicited the support of the Ontario Government in obtaining a price support program of parity prices through deficiency payments on all farm products produced and consumed in Canada.

The OFU indicates that unless a program of this nature is implemented, the family-type farm will be swallowed up by vertical integration—a development which is being encouraged by market price supports.

The brief contained these additional points:

1. It requested the Ontario Government to use its influence to promote the adoption of a system of direction of hogs from the producer straight to the purchaser. Under this method all hog sales would continue to be made by the Ontario Hog Marketing Board, but hogs would remain in the producers' pens until sold.

2. It requested support for the proposals that the price differential between A and B_1 hog grades be changed from $1 to 40¢ per cwt., the premium on B_1 grades be eliminated, and that the premium on A grade carcasses be $5.

3. It called for legislation to allow OFU members to pay annual dues with their municipal taxes by means of a voluntary requisition.

4. It asked for a program to provide that eggs be graded as to quality, but sold by the pound.

5. It asked that milk and cream grading and inspection be taken out of the hands of purchasers and placed under government supervision.

6. It called for a 15 cents per cwt. premium for bulk handled milk.

7. The brief requested that it be compulsory for consignors to be named at community livestock sales.

8. It suggested a modernization of the provincial education program to include: (a) a wider range of courses available to students who take advantage of government loans; (b) a greater uniformity in textbooks, teaching diplomas and accommodation; and (c) a more equitable assessment of farms for school tax purposes.

The brief also requested that farm truck licenses be set at a more realistic rate; that compensation be paid for farm animals lost through rabies; that a plebiscite be held on daylight saving time; that a tax rebate be made on gasoline used for agricultural purposes; and, that auto insurance be made compulsory. V

FUA DEVELOPS SAFETY PROGRAM

The Farmers' Union of Alberta made plans at a meeting held in Edmonton last month to launch a Farm Safety Program. It was decided that the Farm Women's Union of Alberta would conduct an educational campaign on farm safety; that the Highway Safety Committee would conduct an educational campaign on highway safety; and, that a study of farm accidents in typical areas would be undertaken.

It was agreed that the F.W.U.A. would appoint safety conveners in each local. Each month these conveners will list all accidents in their districts and forward these to Mrs. F. A. Sissons of Clive who will keep a master record for use of all interested committees.

The FUA in this way hopes to impress upon all farm people the need for each person to feel responsible for preventing accidents in the home and on the farms and highways. V

MFA PRESENTS VIEWS TO PROVINCIAL CABINET

The Manitoba Federation of Agriculture, in a brief to Premier Roblin and his Cabinet, called on the Government to develop a constructive farm policy no less revolutionary than the technological revolution now taking place in agriculture. To this end it recommended that the Government establish a commission or committee with adequate time and staff to undertake a thorough study of past and future developments in production and living conditions in rural areas.

The MFA delegation, headed by President Sid Ransom, indicated that the purpose of the study should be to draw conclusions and point the direction for future policies which would assist rural communities to make the best use of the new techniques and facilities becoming available.

The following were among other major requests made to the Manitoba Government in the presentation:

1. That an immediate study be made of current trends in agriculture, particularly vertical integration, and that in doing so, careful consideration be given to the position and possibilities of farm co-operatives, producer commodity groups, marketing boards, and a rural credit scheme, as various means available to assist farmers to retain control of their own industry.

(*Please turn to page* 82)

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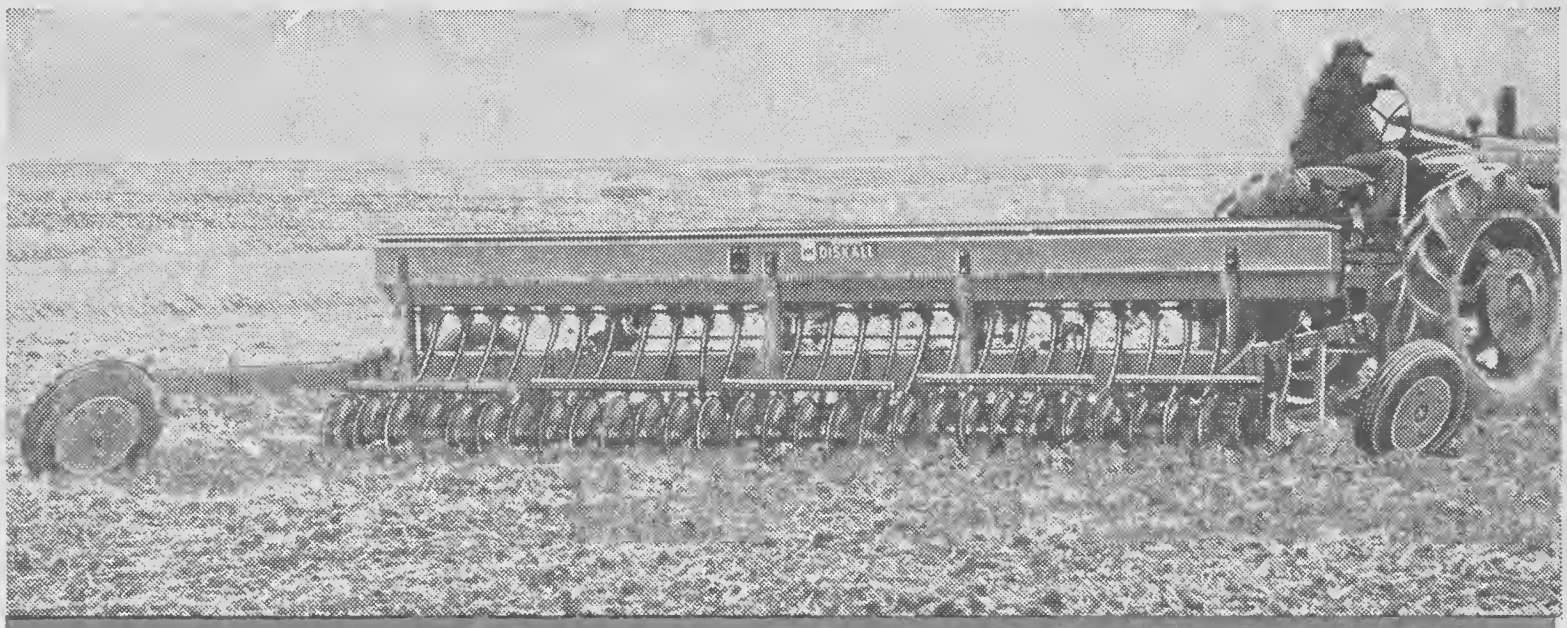

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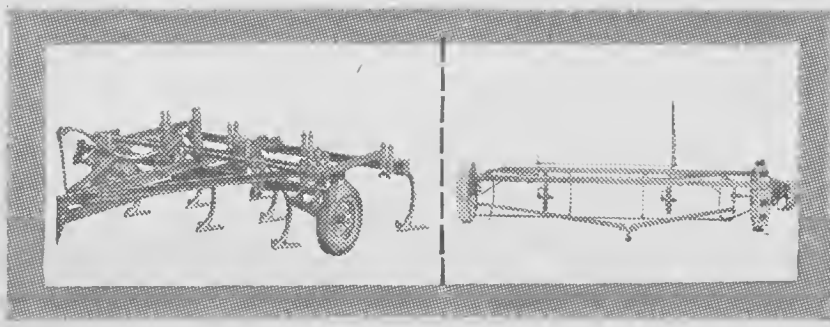

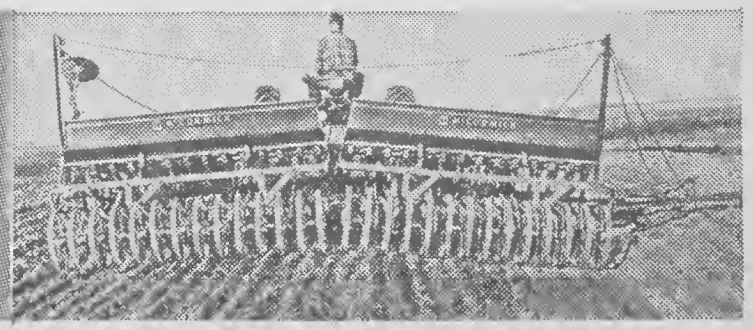

(*Continued from page 80*)

2. That the Government of Manitoba support the request of Western farmers for deficiency payments on wheat, oats and barley, and for realistic support price levels designed to prevent national or regional disaster. In the event that the Federal Government cannot see its way clear to pay deficiency payments on grain, the MFA asked for support in urging the Federal Government to extend the acreage payment program both as to amount and as to time.

3. That the Government support any steps that can be taken to minimize the pressure toward higher municipal and farm interest rates.

4. That the Government continue to oppose applications by the railways for further freight rate increases.

5. That a credit service be set up to assist farmers in understanding and qualifying under existing credit facilities, and to provide additional 5- to 7-year credit arrangements to assist new farmers to establish themselves. Credit availability should be based on a careful assessment of the ability, agricultural education and experience of the applicant, rather than wholly upon the availability of security. √

Rural Route Letter

HI FOLKS:

I was over at Bob Jackson's when one of the neighbors phoned to make food arrangements for a farm tour we're putting on real soon.

"Ham?" said Bob, into the phone. "Sure thing. Pete? Pete's here now—I'll tell him. Sure, I goteha—4 pounds of coffee." Then he hung up. The whole thing took about a minute and a half.

"That was Tom Branum," he explained to me, "phoning about the farm tour. I'm to bring a ham, and he's got you down for 4 pounds of coffee."

Do you think our womenfolk could fix up the details for a get-together as quick as that? No sir, not on your life. If Helen Jackson was to phone Sara about a church soeial now, you'd see what I mean right away. First off, Sara would want to know what all the other girls were bringing, and then they'd dicker back and forth a bit about what was fair and what wasn't. Like as not they'd wind up discussing the recent activities (or lack of them) of everybody in the Auxiliary, with a crack at the cost of living and Mister Khrushchev to boot.

But we have a plan—yes sir, we have a plan at last, and we figure to work it something like this. We'll form a group to fight victims of this telephonitis, and we'll call it "Telephonics Anonymous." Whenever one of the girls feels this awful urge to grab a phone and eall Helen or Mabel, her husband ean tell her to be strong and hold it a minute while he rushes an S.O.S. to the local "T.A." group. Then a bunch of the members can come and sit with her and really talk things out. First thing the poor woman knows, that violent urge to patronize Alexander Graham Bell will disappear right off. Sister, there's hope for you yet!

Of course, to be any use, the group should be made up of wives who have had this sinful craving and conquered it. And that's where the rub eomes in. Finding enough cured ones around here to form a quorum, as you might say, is going to be a pretty hard thing to do. I guess impossible would be a better word. I don't think we'd be able to import any either—like the cowboy said when he first saw a giraffe, "there just ain't no such animal."

Maybe "Telephonics Anonymous" will have to wait until mankind, or womankind I should say, is a little farther advanced.

Yours,

PETE WILLIAMS.

The Tillers

by **JIM ZILVERBERG**

An Aid To Remembering

by HELEN MARQUIS

THERE'S a reminder box in my house. Unless you have one, the next time you drive past Alice's house you'll probably say: "There! I've forgotten to return her quart sealer." She gave it to you full of the 7-day pickles you liked so well when she served them at dinner at her place last fall.

Or maybe you meet Sally on the street and she tactfully hints that she'd like that best-seller back, because Nell would like to read it. You forgot you had it, didn't you? And those plant slips for old Mrs. Myers. And Ann's snow-suit pattern. And—but why go on? We all know how it goes.

Until a year ago I was among the multitude of forgetters who pave the road to you-know-where with good intentions to remember to return things. Then I woke up to the fact that my bad memory was little more than bad manners. I resolved to do something about it, and out of that resolution evolved the Memory Box.

It started as a cardboard carton marked "Cut Macaroni. Five lb. net when packed." A scrap of wallpaper glamorized the box. With a double ply of the same wallpaper I made a pocket on the outside of the front. Into this pocket I put a tiny note pad (3 for 10 cents in any novelty store) and a pencil. On the pad I write the things I have promised and which will not be collected until the last minute, such as African Violet leaves for a plant fancier, the bouquet for a hospital patient, the pint of cream for Auntie.

In the box go all the things to be returned or passed on—borrowed books; Tommy's mitts, left here last week; seed from my giant pansies, promised to Louise; Aunt Lucy's last letter for Ann to read; and so on. Jars and bottles have the owner's name written on a slip of paper and dropped inside. Magazines are labelled.

Before leaving the house, the last thing we do is to look in the Memory Box to see if anything goes our way this time. Believe me, it's much easier to remember now. V

W. H. Miller, of North Surrey, B.C., sent us this picture of his granddaughter taking The Country Guide from the mailbox.

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